台灣男性學醫學會

103年度第八屆第一次會員大會暨第41次學術演講會

Program of 2014 Annual Meeting and 41st General Scientific Meeting of The Taiwanese Association of Andrology

時　　間：2014年3月1-2日（星期六-日）
地　　點：成大醫學院第一至第三講堂
（台南市東區大學路一號）
主辦單位：台灣男性學醫學會
協辦單位：台灣泌尿科醫學會、成大醫院泌尿部、
財團法人鳳凰泌尿科學文教基金會

103 年度第八屆第一次會員大會暨第 41 次學術演講會 目錄

理事長歡迎詞

第七屆理事長 簡邦平醫師

各位會員：

大家好，一年一度的學會大會很快又來臨。

感謝學術主委林永明教授、會訊主編黃志賢教授、祕書長蔡維恭醫師、財務長陳煜醫師、網路維護盧致誠醫師與全體理監事三年來的支持，讓第七屆學會會務圓滿畫下句點。新增會員共計 74 名，顯見新生代對男性學有濃厚興趣。

回顧三年完成的工作，除了理監事會議都如期舉行外，包括：

學術　我們於 2011 年在高雄成功舉辦第 13 屆亞太地區性醫學學會雙年會，讓亞洲及全球專家認識臺灣男性學學會。另共舉行三次年度會議：2011 年在嘉義長庚舉行 (陳志碩教授擔任會長)；2012 年在台北榮總舉行（林登龍教授擔任會長），同時舉辦學會 20 週年慶祝會；2013 年在成大醫學院舉行 (林永明教授擔任會長)。謝謝大家的幫忙。

第七屆理事長 簡邦平醫師和全體學術委員合影留念。
左起：蔡維恭、莊豐賓、黃世聰、林永明、簡邦平、張宏江、黃志賢、吳建志、劉家駒、廖俊厚。

民眾衛教　在志賢的策劃下，會訊每期都準時出刊且內容精采，更跟一些網站連線，提供更多閱讀機會，大陸的男性學學會更每期轉載。另我們也出版了國內第一本關於男性不孕症的衛教專書，感謝永明的編輯，大家動筆寫出的智慧結晶，都將會留下大家永遠的回憶。

任內更特別的是，男性學學會更史無前例在電視宣導衛教，廣播與各大平面媒體的報導無計其數。男性學學會的聲音，深入家庭，傳遍臺灣的大街小巷，好不熱鬧，提昇民眾對男性學疾病與學會的認知。

榮譽　學會於 2011 年與 2013 年獲得內政部評為全國性社會團體工作評鑑績效卓著名列優等團體之一，這份榮耀要跟全體會員共同分享。統計從 100 年到 103 年, 投稿學會口頭論文最多的前三名醫院是臺北榮民總醫院 (20 篇)、成功大學附屬醫院（12 篇)、高雄榮民總醫院（11 篇）；個人是簡邦平醫師（10 篇)、鄭裕生醫師（4 篇)、曹智惟醫師（4 篇)。

今年年會共有 36 篇學術論文，可謂豐碩。邀請三位重量級演講學者，包括來自美國的 Allen D Seftel 教授、韓國現任男性學會會長 Sung Won Lee 教授與成大公共衛生研究所所長陳國東教授, 希望大家不要錯過跟大師交流的經驗。今年更有「中國性學會」現任主席委員賀占舉教授（北京大學附屬醫院)，率 50 位大陸學者專家與會，共襄盛舉。有道是有朋自遠方來，不亦樂乎。

第七屆 簡邦平理事長和全體理監事合影留念。
後排左起：黃志賢、謝政興、黃世聰、楊緒棣、林永明、劉詩彬、張進寶、劉家駒、李祥生、郭育成、吳建志。
前排左起：張宏江、蔡維恭、王起杰、簡邦平、孫光煥、吳季如。

除了精采的學術活動以外，永明更精心策劃幾項台南的深度之旅，加上名聞全國的台南小吃，我想會讓每位會員度過一個難忘的會員大會。

理事長的工作繁重，會務大小事一堆，幸賴秘書何秀珠小姐有條不紊的逐項完成，並每週按時與我討論。理事長一職的工作表現或許不盡人意，但個人實已殫精竭慮，對學會會務個人始終抱持以下的理念：要學會更好、一切以學術為重、格局要大。

任何工作都需要熱情，缺乏熱情無法成就偉大事業。男性學人才濟濟，足以擔當下屆理事長的人選有好幾位，中生代與新生代醫師中已展露頭角者更有多位，就像 20 年前如初生之犢的我一樣。

臺灣需要立足亞洲與國際, 冀望接任的理事長能帶領學會繼續在臺灣、亞洲、國際發光發熱，更希望大家能繼續支持男性學學會。

大會會長序

成大醫院泌尿部男性生殖科主任　林永明醫師

台灣男性學醫學會於 1993 年 3 月 6 日，由林信男教授號召國內醫學先進於台南成大醫學院成立，至今已有 21 年的歷史，每年在全國各地輪流舉辦年會。距離上次在成大醫學院舉辦年會(2004 年)已有 10 年。林信男教授雖然已經退休，但仍然關注國內男性學醫的發展，鼓勵成大泌尿部積極參與學會活動。今年，在成大泌尿部同仁的全力支持及醫學會全體理監事的首懇下，我們爭取到年會在成大醫學院舉行。

為了迎接此一盛事，成大泌尿部在楊文宏主任的領導下，全體醫師、護理人員、技術員、助理、醫學生及財團法人凰凰泌尿科學文教基金會通力合作，精心的安排會議場地、協調行程、規劃軟硬體設備、調派人員、安排節目、接洽住宿、交通接送、旅遊行程等。希望會員及眷屬在大會的規劃下，能有一個舒適、便利的環境，參與這次的學術盛會。

我們特別感謝簡邦平理事長、蔡維恭秘書長及醫學會工作人員的大力支持與幫忙。他們巨細靡遺的提醒我們舉辦年會應該注意的事項，從最基本的人力配置、場地布置、大會講稿、節目安排到理監事選舉細節等，處處看得到醫學會的用心。這次年會在成大醫學院的成功舉辦，他們居功厥偉。

台南市為文化古都，人文薈集，文化氣氛濃厚。沒有北部多變、快節奏的生活步調。暖春三月，氣候良好，不會悶熱，到處充滿了古蹟與令人饞涎欲滴的小吃。除了赤崁樓、安平古堡，你是否還知道海安路、神農街與正興街的五條港文化。海安路上的藍晒圖，夜晚的露天 bar，神農街上舊時代的店鋪，正興街上的咖啡館與冰淇淋。這是一個除了學術會議外，有許多值得您細細品嘗的慢活人生。來台南體驗一下吧，您會喜歡的。

相信這一次的會議，有紮實的學術討論，又有台南特有的風情。一定會令人難忘，讓您收獲滿滿，且回味無窮。

祝福大家
平安喜樂！ 身體健康！ 萬事如意！

林永明謹識
2014 年 3 月 1 日
國立成功大學醫學院泌尿學科暨附設醫院泌尿部

江萬煊教授傑出研究論文獎序

輔仁大學校長 江漢聲醫師

首先，我代表江萬煊教授的家屬，感謝台灣男性學醫學會成立「紀念江萬煊教授傑出研究論文獎」，江教授在台灣是男性醫學臨床工作，學術研究和社會教育的先驅大師，以這獎項來紀念他，啟發後輩延續他的理想是涵意深遠的。

今年有多篇論文參選，在 10 位評審委員的評選後，恭喜簡邦平教授以發表於 Journal of sexual medicine 的男性性功能研究論文得獎，其他參選論文也概括男性不孕，男性老化的研究，都相當出色，我想，江教授地下有知，一定會對台灣男性醫學的發展備感欣慰。

我們家屬們也感謝這獎項的所有捐款人，從告別式現場的奠儀，到後續一直有親友，學生的捐款，我們銘感於心，除了讓這獎項永續舉辦之外，也將在今年 4 月 19 日舉辦紀念演講會，以表達大家感念江教授的心意。

最後，敬祝大家身心健康，2014 年萬事如意。

江漢聲
輔仁大學校長

大會注意事項

壹、論文發表

一、(1)分一般論文及論文獎口頭發表兩組。
(2)每題演講及討論10分鐘，7分鐘時第一聲鈴響，8分鐘第二聲鈴響並開燈，演講即應結束，隨即討論2分鐘。
(3)敬請演講者嚴格遵守，謝謝合作。

二、外賓特別演講
每題演講及討論共40鐘；34分鐘時第一聲鈴響，35分鐘時第二聲鈴響並開燈，演講即應結束，隨即討論5分鐘。

三、如果演講未結束，請座長提醒演講者時間已到。如演講時間已到，即開燈結束演講並省略討論。

四、敬請各座長嚴格控制演講及討論時間，以利節目進行。

貳、一般事項

一、報到
報到時間：3 月 1 日上午 7 時 30 分至下午 16 時 30 分止。
3 月 2 日上午 7 時 30 分至 11 時止。
報到地點：成大醫學院大廳前辦理報到。

二、會員大會
3 月 1 日 11 時 20 分至 12 時於第三講堂舉行，敬請會員踴躍參加。

三、理監事聯席會議
於3月2日（星期日）下午12時30分起，假四樓簡易餐廳進行第八屆第一次理監事聯席會議，會中並將改選常務理事、理事長及常務監事。

四、醫療商品展示
會議期間各參展廠商將於各講堂前廣場舉辦醫療商品展示，歡迎參觀。

五、3 月 2 日午餐供應
敬請與會人員憑名牌至四樓簡易餐廳用餐，並同時進行 Lunch Symposium。

六、成大醫學院會議地點交通資訊：台南市東區大學路 1 號（成杏校區）

自行開車（國道路線）

南下：沿國道一號南下 → 下永康交流道右轉 → 沿中正北路、中正南路(南向)往台南市區直行 → 中華路左轉 → 沿中華東路前進 → 於小東路口右轉，直走即可抵達本院。【自國道三號南下者，轉國道 8 號（西向），可接國道一號（南向)】

北上：沿國道一號北上 → 下仁德交流道左轉 → 沿東門路(西向)往台南市區直走 → 遇中華東路右轉(北向) → 於小東路口左轉，直走即可抵達本院。【自國道三號北上者，轉 86 號快速道路（西向)，可接國道一號（北向)】

搭乘火車+步行

於台南站下車後，自後站出口走大學路→ 勝利路左轉→遇小東路右轉約 100 公尺，左側即為醫學院成杏校區入口。

搭乘高鐵

搭乘台灣高鐵抵台南站者，由高鐵台南站二樓轉乘通廊或一樓大廳 1 號出口前往台鐵沙崙站，搭乘台鐵區間車前往台南火車站(約 20 分鐘可到達台南火車站，詳細車班班次請參考高鐵或台鐵網站)，後火車站出口處前方搭乘本會免費服務接駁車至會場。

交通示意圖

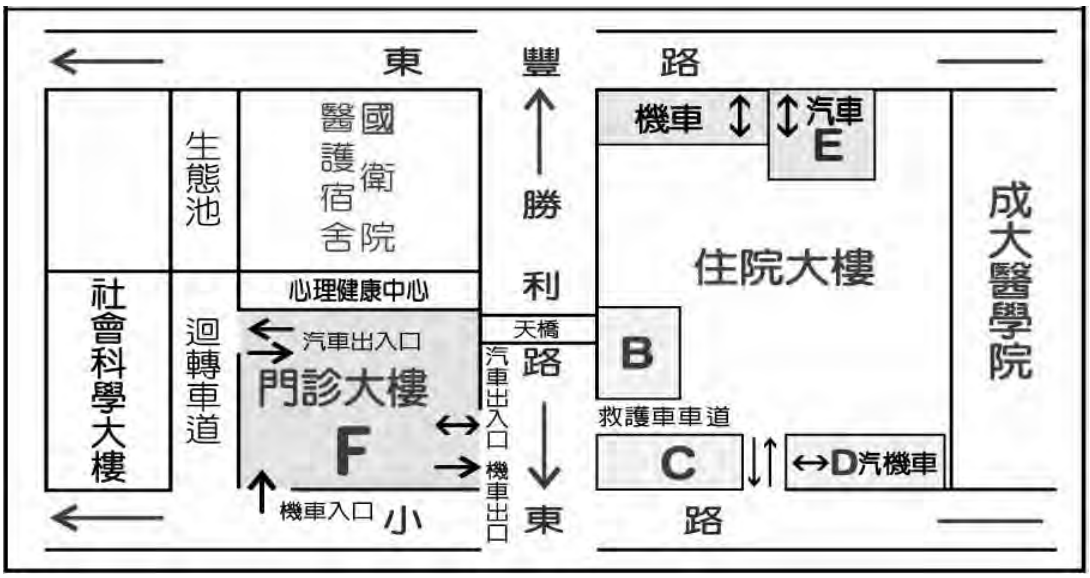
會議地點交通資訊：國立成功大學醫學院（台南市東區大學路 1 號 – 成杏校區）

接駁車服務

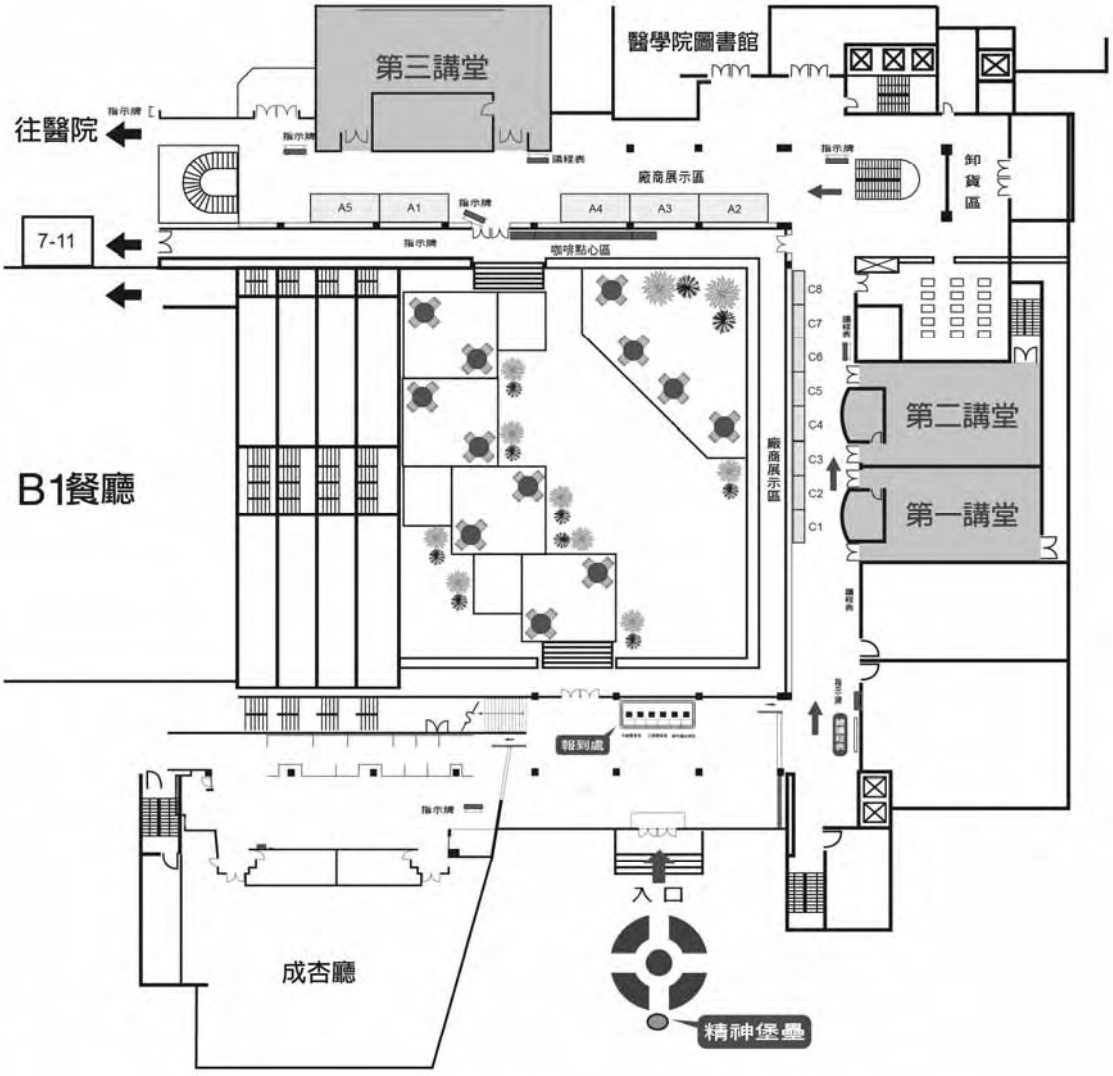
候車地點：後火車站出口過馬路約 10 公尺，成功大學圍牆旁成大醫院接駁車站牌
服務時間：3/1 （W 六，7：30 17：00）；3/2 (W 日，7：30 12：00)
路　　線：成大醫學院←→成大會館←→香格里拉台南遠東國際大飯店，每三十分鐘一車次。

停車服務，每小時 20 元

1. 成大醫院門診大樓地下室 B1～B3。
2. 會場（成大醫學院）周圍道路之停車格。



會場分佈圖



A1 新加坡商美納里尼醫藥有限公司台灣分公司
A2 台灣禮來股份有限公司
A3 輝瑞藥廠股份有限公司
A4 台灣拜耳股份有限公司
A5 商橋公關顧問股份有限公司

C1 合記出版社股份有限公司
C2 健喬信元醫藥生技股份有限公司
C3 台灣大昌華嘉股份有限公司
C4 台灣安斯泰來製藥股份有限公司
C5~6 友華生技股份有限公司
C7 懇儀股份有限公司
C8 承杏藥品有限公司

2014年台灣男性學醫學會年會

會議議程表

2014/3/1 (星期六)	第三講堂	第二講堂	第一講堂
07:30~16:30	辦理報到、繳費		
08:10~09:40	一般論文發表 ED 組（ED-1~ED-9）	一般論文發表 P 組（P-1~P-7）	
09:40~10:00	Break Time		
10:00~10:40	Special Lecture A G1 外賓演講 Professor Allen D Seftel		
10:40~11:20	Special Lecture B G2 外賓演講 Professor Sung Won LEE		
11:20~12:00	會員大會		
12:10~13:10	Lunch Symposium （Lilly）4 樓簡易餐廳		理監事選舉作業 (12:00-16:30)
13:20~14:20	Round Table 1	不孕症研討會	
14:20~15:00	Clinical Debate		
15:00~15:20	Break Time		
15:20~16:00	特別專題演講 陳國東教授	感染議題 (15:20-16:10)	
16:00~17:20	Evening Symposium	紀念江萬煊教授 傑出研究論文獎 (C1) (16:10-16:30)	理監事選舉開票 (16:30-17:30)
18:00~	大會晚宴		
2014/3/2 (星期日)	第三講堂	第二講堂	第一講堂
07:30~11:00	辦理報到、繳費		
08:00~09:20	Round Table 2	一般論文發表 I 組（I-1~I-12）	
09:20~10:00	Interactive Panel		
10:00~10:20	Break Time		
10:20~11:10	男性學論文獎發表 (E1~E5) 一般醫師組	男性學論文獎發表 (E6~E7) 住院醫師組 (10:20-10:40)	
11:10~12:00	兩性議題 柯乃熒教授	一般論文發表 O 組（O-1~O-8） (10:40-12:00)	

第七屆理監事

理　　事　　長：簡邦平
常 務 理 事：黃志賢　黃世聰　張進寶　王起杰
理　　事：江漢聲　林永明　劉詩彬　楊緒棣　吳建志　孫光煥
　　李祥生　吳季如　許耕榕　陳修聖
常 務 監 事：張宏江
監　　事：劉家駒　郭育成　謝政興　陳志碩
顧　　問：林信男　陳光國　謝汝敦　黃一勝
秘　　書　　長：蔡維恭
財　　務　　長：陳　煜

大會暨學術演講會工作人員

理　　事　　長：簡邦平
學　　術　　組：林永明　吳建志　張宏江　莊豐賓　陳志鴻　黃世聰
　　黃志賢　廖俊厚　劉家駒
大會榮譽顧問：林信男
大會榮譽會長：楊文宏
大 會 會 長：林永明
大 會 秘 書 長：鄭裕生
大會副秘書長：林佩瑜
總　　務　　組：黃冠勳
會　　務　　組：歐穎謙
接　　待　　組：林佩瑜
財　　務　　組：陳　煜
秘　　書　　組：蔡維恭　林淑玲　王素明　何秀珠

會員大會程序

一、大會開始
二、主席就位
三、理事長致詞
四、大會榮譽顧問／大會會長致詞
五、男性學論文獎頒獎
六、男性學成就獎頒獎
七、榮譽會員頒獎
八、大會會長頒獎
九、理事會暨監事會報告
十、討論事項
(A) 請表決一〇二年度決算案。
(B) 請表決一〇三年度預算案。
(C) 請表決本會組織章程中第二章會員第七條榮譽會員第三點第 2 項新修定案。

原條文：榮譽會員：
(1) 凡贊同本會宗旨，對男性學醫學有卓越貢獻，由本會理監事各一人之推薦，經理事會通過後聘任之；曾榮獲本會「男性學成就獎」殊榮之人士，得禮聘為本會榮譽會員。
(2) 本會會員繳納會費滿十年以上，且年滿**七十歲以上者**，得申請榮譽會員，經理事會通過後授予之。
前項會員名冊應報主管機關備查。

新條文：榮譽會員：
(1) 凡贊同本會宗旨，對男性學醫學有卓越貢獻，由本會理監事各一人之推薦，經理事會通過後聘任之；曾榮獲本會「男性學成就獎」殊榮之人士，得禮聘為本會榮譽會員。
(2) 本會會員繳納會費滿十年以上，且年滿**六十五歲以上者**，得申請榮譽會員，經理事會通過後授予之。
前項會員名冊應報主管機關備查。

(D) 請表決《江萬煊教授傑出研究論文獎》甄選辦法修定案。

	原條文	新條文
一、主　　旨	本學會為紀念男性醫學先輩江萬煊教授教授之著績杏林，並藉此鼓勵會員積極從事臨床醫學與基礎醫療研究，特設[紀念江萬煊教授傑出論文獎]。本獎項由江萬煊教授家屬捐款成立，後續接受各界捐款以永續經營。	本學會為紀念男性醫學先輩江萬煊教授教授之著績杏林，並藉此鼓勵會員**或國內從事男性醫學相關研究之學者]**積極從事臨床醫學與基礎醫療研究，特設[紀念江萬煊教授傑出論文獎]。本獎項由江萬煊教授家屬捐款成立，後續接受各界捐款以永續經營。
二、對　　象	(本學會會員)國內從事男性醫學相關研究之學者，原則：已發表論文之第一作者。	本學會會員**或**國內從事男性醫學相關研究之學者，原則：已發表論文之第一作者。
五、申請方式	由會員推薦或會員自行提出申請（請作者提供參選論着之刊登雜誌 SCI 點數，方便委員審核）；由審查委員評選，未獲選本獎項之論文，將不主動推薦給男性醫學會之其他獎項。	**凡參加甄選者，**請作者提供參選論着之刊登雜誌 SCI 點數，方便委員審核。由審查委員評選，未獲選本獎項之論文，將不主動推薦給男性醫學會之其他獎項。**若同一篇論文，同年獲得本會男性學論文獎獎項者，僅限選擇單一獎項得獎。**
七、申請辦法	請將該刊出論文抽印本或影印本十一份，於截止日前寄至本會，以利評審。	請將該刊出論文抽印本或影印本十一份，**於每年 11 月底截止日前**寄至本會，以利評審。
八、審查方式	由本學會理監事會議委任審查委員評選，(為尊重江教授家屬意願，得委任其家屬中擔任醫療工作者為委員之一)，審查委員名單於理事長改選時得另行委任之。	由本學會理監事會議委任**學術委員會委員擔任**審查委員評選，(為尊重江教授家屬意願，得委任其家屬中擔任醫療工作者為委員之一)，審查委員名單於理事長改選時得另行委任之。
十一、附註	無	**1. 本辦法得經本會學術暨理監事聯席會議通過實行修正時亦同。** **2. 非會員若獲獎，事後必須申請加入成為 TAA 會員，才能授獎，否則視同棄權。**

十一、臨時動議

十二、散會

報告事項

一、理事會報告

⑴會務報告及計畫：

1. 102 年工作報告。
2. 103 年工作計劃。
3. 台灣 SDACT 委員會 102 年工作報告。
4. 台灣 SDACT 委員會 103 年工作計劃。

⑵經費決算及預算案：

1. 102 年度決算案。
2. 103 年度預算案。

⑶會員概況：

1. 一般會員 360 名（含永久會員 88 名，停權會員 19 名)。

102 年度新入會員名單

編號	姓名	服務單位
450R	簡佑全	彰化基督教醫院泌尿科住院醫師
451	蔡宗佑	亞東醫院泌尿科主治醫師
452	楊清華	亞東醫院泌尿科主治醫師
453	曾一修	亞東醫院泌尿科主治醫師
454R	白彝維	馬偕醫院泌尿科住院醫師
455R	邱毅平	新光醫院泌尿科住院醫師
456R	王中麟	陽明大學生理學研究所博士班三年級
457R	黃子豪	台北榮民總醫院泌尿科住院醫師
458R	程威銘	台北榮民總醫院泌尿科住院醫師
459	蘇士銘	台北榮民總醫院泌尿科住院醫師
460	高建璋	三軍總醫院泌尿科主治醫師

編號	姓名	服務單位
461	黃海華	高雄市黃泌尿科診所
462	林殿璜	台中慈濟醫院泌尿科主治醫師
463	林盈宏	輔仁大學基礎醫學所助理教授
464	許世昌	博恩泌尿科外科診所負責醫師
465R	陳建升	成大醫院泌尿部住院醫院
466	吳建穎	郭綜合醫院泌尿科主治醫師
467R	莊政晏	台北榮民總醫院泌尿科住院醫師
468R	陳秉鴻	成大醫院泌尿部住院醫師
469	蕭志豪	萬芳醫院泌尿科主治醫師
470	陳景亮	花蓮慈濟醫院泌尿科主治醫師
471	許如麗	捷康泌尿診所醫師
472	陳建綸	林口長庚高齡泌尿科主任
473R	洪士雅	高雄長庚醫院泌尿科住院醫師
474	曾冠富	彰化基督教醫院泌尿科主治醫師
475R	蘇信豪	高雄長庚醫院泌尿科住院醫師
476R	陳逸軒	高雄榮民總醫院泌尿科住院醫師
477	蔡尚憲	國泰醫院泌尿科主治醫師
478R	陳聖復	花蓮慈濟醫院泌尿科住院醫師
479R	張幼誠	高雄榮民總醫院泌尿科住院醫師
480R	楊凱富	高雄醫學大學附設醫院泌尿科住院醫師
481R	王舜禾	台北市立醫院仁愛院區內科部住院醫師

2. 榮譽會員　26 名（含外賓 2 名）。

榮譽會員簡介

102 年度新增榮譽會員名單：

<table>
<tr>
<td>姓　名：林介山醫師
學經歷：台北醫學大學醫學士
中山醫學大學醫學研究所碩士、博士
彰化基督教醫院泌尿科主任董事
埔里基督教醫院董事
彰化縣醫師公會理事長
中華民國醫師公會全聯會理事
台灣男性學醫學會創會會員第一屆監事
臺灣泌尿科醫學會理事
泌尿生殖系感染、小兒泌尿委員會
2010 年亞洲泌尿科醫學會最佳醫學海報獎
2013 年台灣泌尿科醫學會醫學影片亞軍
入選台陽畫展、彰化縣美術學會會員，台灣藝術家法國巴黎沙龍學會會員
(2007-2013)入選巴黎沙龍展三次，秋季沙龍展四次 2013 年台中市港區藝術中心第十二屆全國百號油畫大展優選
現　職：彰化基督教醫院泌尿科主治醫師
中山醫學大學醫學研究所兼任助理教授
林介山泌尿科皮膚科診所主治醫師</td>
<td>  </td>
</tr>
<tr>
<td>姓　名：劉青鵬醫師
學經歷：國防醫學院畢業
空軍總醫院泌尿科主任，外科部主任
現　職：中心診所泌尿科主治醫師
其他事蹟：英國泌尿科學院研究班
美國哥倫比亞大學長老教會醫院泌尿科研究</td>
<td>  </td>
</tr>
</table>

姓名：蔡義成醫師 經歷：省立台南醫院皮膚泌尿科住院醫師、總醫師、 主治醫師、皮膚科主任 現職：蔡皮膚泌尿科診所醫師	
姓名：蕭基源醫師 經歷：國軍高雄總醫院泌尿外科主任、外科部主任 國軍桃園總醫院院長 高雄榮民總醫院副院長 現職：嘉義祥太醫院院長	

姓名：賴明坤醫師

經歷：

1.美國紐約州 University of Rochester 醫學中心普外科、泌尿科住院醫師（1974-1980）
2.美國佛羅裏達州 Port Reachy 醫院主治醫師（12/1981-05/1982）
3.臺灣林口長庚醫院泌尿科主任醫師（科主任）（7/1985-1/1994）
4.臺灣台大醫院泌尿部主任（8/1994 – 8/1999）
5.臺灣羅東博愛醫院院長（8/1999 – 8/2000）
6.臺灣大學附設醫院副院長（2/2001– 7/2003）
7.臺灣台大醫院腫瘤醫學部主任（8/2003 –7/2009）
8.臺灣泌尿科醫學會理事長（1998-2000）
9.臺灣器官移植醫學會理事長 (1996-1999）
10.臺灣大學醫學院泌尿科教授（2/1994-1/2011）
11.福建省廈門長庚醫院副院長（2/2011-8/2012）

現職：

1.福建省廈門長庚醫院院長（8/2012-目前）
2.廈門市醫師協會副會長
3.臺灣林口長庚醫院泌尿科主任醫師
4.長庚大學兼任教授
5.北京清華大學客座教授(11/16/2011 –11/15/2014)

其他事蹟：

1.日本泌尿外科學會名譽會員 (2008–目前)
2.美國國家癌症中心治療指引亞洲版制定委員 Panel member, NCCN (National Cancer Center Network) Asian Statement for Kidney and Prostate Cancer)
3.臺灣癌症照護品質認證委員
4.美國紐約州羅雀斯特大學客座教授（04/1/2008 – 03/31/2009）
5.臺灣大學學術研究成果獎（2008）
6.荷蘭鹿特丹伊拉士姆斯大學醫院客座教授（10/11-19/1998）
7.美國泌尿科專科醫師

3. 團體會員　5 名。

二、監事會報告

(一) 關於大會執行工作經過，理事會均已分別報告，並視實際需要配合經費執行。

(二) 關於理事會處理會務均依本會章程辦理，遇有重要事項，則召開各委員會或理監事聯席會議商討解決。

(三) 本年理事會工作積極，值得向本會全體會員告慰。

台 灣 男 性 學 醫 學 會

一〇二年工作報告

中華民國 102 年 1 月 1 日至 102 年 12 月 31 日止

一、會員大會

3 月 2 日假台北榮民總醫院致德樓第二會議室舉辦本會 102 年度第七屆第三次會員大會。

二、學術演講

(1) 3 月 2-3 兩日假台北榮民總醫院致德樓會議廳舉辦本會第 39 次學術演講會。

(2) 8 月 29 日至 9 月 1 日假義守大學燕巢分部育成研究實驗大樓會議室舉辦本會第 40 次學術演講會。

三、理監事會議

(1) 3 月 3 日召開第七屆第七次理監事聯席會議。

(2) 8 月 31 日召開第七屆第八次理監事聯席會議。

(3)12月 14 日召開第七屆第九次理監事聯席會議。

四、繼續教育

(1) 3 月 2 日假台北榮民總醫院致德樓第二會議室舉辦本會「廿週年紀念演講會」。

(2)6 月 22 日假高雄醫學大學附設醫院啟川大樓六樓第二講堂舉辦「TAA and SDACT Symposium-Sexual Dysfunction and Men's Health」。

(3)9 月 28 日假台大醫院國際會議中心 203 室舉辦【2013 年男性生殖醫學與性醫學最新發展】研討會。

(4)12 月 7 日假台北喜來登大飯店 B2F 日月星廳舉辦「TAA Symposium: The Crosstalk between ED and BPH/LUTS」。

(5)台灣 SDACT 委員會舉辦之地方繼續教育課程及衛教講座。

五、出版

(1)大會手冊。

(2)研討會書籍。

(3)本會電子報會訊：

第 7 卷第 8 期、第 7 卷第 9 期、第 7 卷第 10 期、第 7 卷第 11 期。

(4)男性健康、性福雙享報、男性健康寶典以及男人 40 - 男性更年期手冊。

六、網站：www.tand.org.tw

七、論文獎比賽

為促進會員之學術研究風氣，每年舉辦一次論文比賽，分基礎與臨床兩組（含住院醫師組)。其名次由本會學術暨教育委員會評定並決議頒發獎項或從缺。

八、男性學成就獎

為獎勵對國內男性學研究有貢獻之學者，特頒此獎項以資鼓勵。

九、國際學術交流

Professor Anthony Beardsworth, Professor John P. Mulhall, Professor Jae-Seung Paick and Professor Louis Gooren 等人應邀蒞臨本會舉辦之「廿週年紀念演講會」以及「102 年度第七屆第三次會員大會暨第 39 次學術演講會」中作專題演講。

台 灣 男 性 學 醫 學 會
一〇三年作計劃
中華民國 103 年 1 月 1 日至 103 年 12 月 31 日止

一、會員大會
3 月 1 日假成大醫學院第三講堂舉辦本會 103 年度第八屆第一次會員大會。

二、學術演講
⑴ 3 月 1-2 兩日假成大醫學院第二至第三講堂舉辦本會第 41 次學術演講會。
⑵ 8月份舉辦本會第42次學術演講會。

三、理監事會議
⑴ 3 月份召開第八屆第一次理監事聯席會議。
⑵ 8 月份召開第八屆第二次理監事聯席會議。
⑶12月份召開第八屆第三次理監事聯席會議。

四、繼續教育
⑴2 月 28 日假台南香格里拉大飯店舉辦本會【2014 TAA Pre-Congress Symposium: Young Men's Sexual and Reproductive Health】。
⑵舉辦 TAA 地方學術研討會。
⑶台灣 SDACT 委員會舉辦之地方繼續教育課程及衛教講座。

五、出版
⑴大會手冊。
⑵研討會書籍。
⑶本會電子報會訊：第 7 卷第 12 期、第 8 卷第 1 期、第 8 卷第 2 期、第 8 卷第 3 期。
⑷男性不孕症專書、早洩、男性更年期及男性健康衛教手冊。

六、網站：www.tand.org.tw

七、論文獎比賽（含江萬煊教授傑出研究論文獎）
為促進會員之學術研究風氣，每年舉辦一次論文比賽，分基礎與臨床兩組（含住院醫師組）。其名次由本會學術暨教育委員會評定並決議頒發獎項或從缺。

八、男性學成就獎
為獎勵對國內男性學研究有貢獻之學者，特頒此獎項以資鼓勵。

九、國際學術交流
Professor Allen D. Seftel and Professor Sung Won LEE 等人應邀蒞臨本會舉辦之「103 年度第八屆第一次會員大會暨第 41 次學術演講會」中作專題演講。

台 灣 男 性 學 醫 學 會

台灣性功能障礙諮詢暨訓練委員會

一〇二年工作報告

中華民國102年1月1日至102年12月31日止

一、委員會會議

(1) 6 月 8 日召開台灣 SDACT 委員會第七屆第 2 次委員會會議。

(2) 12 月 14 日召開台灣 SDACT 委員會第七屆第 3 次委員會會議。

二、繼續教育

配合 TAA 研討會活動，合併舉辦台灣 SDACT 繼續教育課程。

(A)6 月 22 日假高雄醫學大學附設醫院啟川大樓六樓第二講堂舉辦「TAA and SDACT Symposium-Sexual Dysfunction and Men's Health」。

(B)9 月 28 日假台大醫院國際會議中心 203 室舉辦【2013 年男性生殖醫學與性醫學最新發展】研討會。

三、民眾教育

全省民眾巡迴衛教講座 8-10 場。

四、投稿計劃（執行中）：

針對「男性性功能障礙線上調查結果」擬定 3 篇投稿計劃。

1. The demography, prevalence of PE in Taiwanese Male.
2. The demography, prevalence of premature ejaculation in Taiwanese from Female's point of view.
3. The demography, prevalence of delayed ejaculation in Taiwanese.

五、出版

男性健康手冊。

六、網站

sdact.tand.org.tw

台 灣 男 性 學 醫 學 會

台灣性功能障礙諮詢暨訓練委員會

一〇三年工作計劃

中華民國103年1月1日至103年12月31日止

一、委員會會議

(1) 5 月份召開台灣 SDACT 第七屆第 4 次委員會會議。

(2) 12 月份召開台灣 SDACT 第八屆第 1 次委員會會議。

二、繼續教育

(1)全省不定期舉辦醫師訓練講座(含非泌尿科醫師繼續教育), 分北、中、南計劃舉辦 1-5 場。

(2)配合 TAA 研討會活動，合併舉辦台灣 SDACT 繼續教育課程。

三、民眾教育

全省民眾巡迴衛教講座 8-10 場。

四、投稿計劃（執行中）：

重新設置「男性性功能障礙線上調查結果」。

五、出版

早洩衛教手冊、男性健康手冊。

六、網站

sdact.tand.org.tw

感謝狀及其他獎狀


台灣男性學醫學會
財團法人鳳凰泌尿科學文教基金會
論文獎臨床組第一名
查會員 何承勳 參加
一〇三年度論文甄選經評審
小組評定以貴論著理論精宏
文采斐然至堪嘉許 特
頒獎鼓勵
理事長 簡邦平
中華民國一〇三年
台灣男性學醫學會
財團法人鳳凰泌尿科學文教基金會
論文獎臨床組第二名
查會員 李永進 參加
一〇三年度論文甄選經評審
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頒獎鼓勵
理事長 簡邦平
中華民國一〇三年
台灣男性學醫學會
輝瑞論文獎基礎組第一名
查會員 陳志碩 參加
一〇三年度論文甄選經評審
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中華民國一〇三年
台灣男性學醫學會
財團法人鳳凰泌尿科學文教基金會
論文獎臨床組第二名
查會員 廖俊厚 參加
一〇三年度論文甄選經評審
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理事長 簡邦平
中華民國一〇三年
台灣男性學醫學會
友華論文獎臨床組第一名
查會員 陳建升 參加
一〇三年度論文甄選經評審
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理事長 簡邦平
中華民國一〇三年
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頒獎鼓勵
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中華民國一〇三年
台灣男性學醫學會
江萬煊教授傑出研究論文獎
查會員 簡邦平 參加
一〇三年度論文甄選經評審
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頒獎鼓勵
理事長 簡邦平
中華民國一〇三年
台灣男性學醫學會
友華論文獎臨床組第二名
查會員 蔡銘駿 參加
一〇三年度論文甄選經評審
小組評定以貴論著理論精宏
文采斐然至堪嘉許 特
頒獎鼓勵
理事長 簡邦平
中華民國一〇三年

感謝狀及其他獎狀

The Taiwanese Association of Andrology
Presented to Professor Allen D. Seftel
in appreciation for your spectacular speech in Tainan, Taiwan
March 1-2, 2014
President Bang-Ping Jiann, MD.

The Taiwanese Association of Andrology
Presented to Professor Sung Won Lee
in appreciation for your spectacular speeches in Tainan, Taiwan
March 1-2, 2014
President Bang-Ping Jiann, MD.

感謝狀及其他獎狀


劉育鵬醫師 惠存
賴明坤醫師 惠存
蔡義成醫師 惠存
蕭基源醫師 惠存
林介山醫師 惠存
榮譽會員獎
台灣男性學醫學會
理事長 簡邦平 敬贈
103年3月1日


感謝
大會會長 林永明 醫師
協助本學會第八屆第一次會員大會
暨第四十一次學術演講會之順利舉行
特贈榮牌，謹致謝忱。
台灣男性學醫學會
理事長 簡邦平 敬贈
103年3月1日


感謝狀
茲感謝 已故江萬煊教授家屬 成立
『江萬煊教授傑出研究論文獎』
對提昇台灣男性學學術貢獻良多
特以此狀 敬表謝忱
台灣男性學醫學會
理事長簡邦平
中華民國103年3月1日

三月一日（星期六）
成大醫學院 第三講堂
【外賓演講】

【Special Lecture A】 座長：黃一勝醫師

時間	講題／主講人	
10:00-10:40 G1	The Evolution of Erectile Dysfunction Management. Dr. Allen D. Seftel Chief, Division of Urology, Cooper University Hospital, Camden, NJ Professor of Urology Cooper Medical School of Rowan University, Camden, NJ Editor, Classic citations, Journal of Sexual Medicine	

三月一日（星期六）
成大醫學院 第三講堂
【外賓演講】

【Special Lecture B】 座長：陳光國醫師

時間	講題／主講人	
10:40-11:20 G2	The Cornerstone of Premature Ejaculation – The Korean Experience Sung Won Lee MD & PhD Professor of department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea	

三月一日（星期六）
成大醫學院 四樓簡易餐廳
【外賓演講】

【Lunch Symposium】 座長：簡邦平醫師

時間	講題／主講人	
12:10-13:10	The Cross between ED and BPH-LUTs. Dr. Allen D. Seftel Chief, Division of Urology, Cooper University Hospital, Camden, NJ Professor of Urology Cooper Medical School of Rowan University, Camden, NJ Editor, Classic citations, Journal of Sexual Medicine	

Curriculum Vitae

Allen D. Seftel, M.D, FACS

E-mail: seftel-allen@cooperhealth.edu
Office address
3 Cooper Plaza Suite 411
Camden, NJ 08103
Office phone – 1-856-963-3577
Office fax- 1-856-968-8457

Academic/ clinical focus
Male and Female Sexual Function, Andrology, Male infertility, BPH, Peyronie's disease, Hypogonadism, kidney cancer

Education:

Undergraduate:

New York University
New York, New York
BA - Chemistry
9/1974 – 6/1978
C. W. Post College - Long Island University
Long Island, New York
Masters -Biomedical Science
6/1978 – 6/1979

Medical School:

State University of New York (SUNY)
Health Science Center - Brooklyn
(Formerly Downstate Medical Center)
Brooklyn, New York
9/1980 – 9/1984; M.D. – 1984

Fellowship:

American Foundation of Urologic Disease
Scholar in Impotence
Boston University School of Medicine
Boston, MA 02118
7/1990 – 7/1992

Residency:

North Shore University Hospital
Manhasset, New York
Surgery – PGY 1, 2
6/1984 – 6/1986
State University of New York (SUNY)
Health Science Center - Brooklyn
(Formerly Downstate Medical Center)
Brooklyn, New York
Urology - PGY 3
7/1986 – 7/1987

Case Western Reserve University
Cleveland, Ohio
Urology, PGY-4, 5, 6
7/1987 – 7/1990

Clinical- current

Head, Division of Urology Cooper University Hospital, Camden, NJ (Oct 2009-Dec 2010)
Chief, Division of Urology Cooper Medical School of Rowan University, Camden, NJ (Jan 2011-present)

Professor of Urology, Robert Wood Johnson School of Medicine, New Brunswick, NJ (Oct 2009-Dec 2010)
Adjunct Professor of Urology, Robert Wood Johnson School of Medicine, New Brunswick, NJ (Jan 2011-present)
Professor of Urology, Cooper Medical School of Rowan University, Camden, NJ (Jan 2011-present)

Clinical-former

Chief, Division of Urology, Cleveland VA Medical Center, Cleveland, Ohio (2005-2009)
Professor of Urology, Case Western Reserve University, Cleveland, Ohio (2004-2009)
Award of Tenure- Case Western Reserve University, Cleveland, Ohio (2000)

Academic-current - Cooper

Co-director –uro-renal course, Cooper Medical School of Rowan University, Camden, NJ (Jan 2010-present)
Medical School Admissions committee- Cooper Medical School of Rowan University, Camden, NJ (Jan 2010- April 2013)
Chair, Cooper Uro-Gyn fellowship 2009-2011
Site director- urology residency (Robert Wood Johnson Primary) Oct 2009- June 2013
Director of Urologic Research, Div of Urology 2009- present

Academic portfolio- national and international

Editor in Chief, International Journal of Impotence Research, Nature Publishing 2004-2009
Section Editor, Journal of Urology, "Urologic Survey, Male Sexual Function, Andrology" 2002 –present
Section editor, Journal of Sexual Medicine, "classic citations" 2012- present
Head, AUA –Urology Care Foundation (former AUA Foundation) 2011- present
Co-chair- AUA –liaison to American Geriatrics Society – SEGUE program. 2004-present
AUA annual meeting abstract reviewer, 2002- present
AUA annual course sexual function 2002-2012

AUA annual course faculty – APN course 2013
AUA APN committee member, 2010-present
AUA plenary session presenter AUA 2013
AUA annual meeting moderator, 2002-present
Finalist for Editor in Chief, Journal of Sexual Medicine, 2013
AUA guidelines panel for erectile dysfunction guidelines 2013-present
Co-chair- AUA Foundation 2012 summer basic research conference, August 2012, Linthicum, MD
AUA Faculty –primary care rounds-topic female sexual function-Phila, PA, Sept 2012
AUA Mid –Atlantic Section – financial committee 2012- present
Invited lecture – Asia –Pacific Society of Sexual Medicine Nov 2011
Invited Lecture – Singapore Asia- Pacific congress of Urological disease, March 2012
Invited Lecture, World Meeting on Sexual Medicine 2012 August 26-30, 2012 - Sheraton Chicago, USA- Penile Injection therapies

Honors and awards:

America's Top Doctors, Castle –Connolly 2002-present
Philadelphia Top Doctors- 2011,2012, 2013
South Jersey Top Doctors-2011, 2012, 2103
Master Teacher in Urology, Downstate College of Medicine, May 2009
Best Reviewer 2008- Sexual Medicine papers- Journal of Urology

Research Grants:

Cooper Cancer Institute: Anorgasmia after radical prostatectomy-ongoing
P and F grant July 2010-June 2012- Univ of Pennsylvania (Seftel A, PI)
Under NIH/NIDDK grants P50 DK052620 (Chacko S)

Patents:

Publication date Jan 5, 2012
Method and apparatus for storing a laser optical fiber
US 20120002933 A1

Clinical Trials:

Auxilium- xiaflex for peyronie's
Phase IIIb trial-closed June 2013
Phase 4 trial- open

Lilly- LVIP – phase 4- closed
Lilly-Axiron – phase 4- in process

G1

The Evolution of Erectile Dysfunction Management

Allen D. Seftel, MD
Chief, Division of Urology, Cooper University Hospital, Camden, NJ
Professor of Urology
Cooper Medical School of Rowan University, Camden, NJ
Editor, Classic citations, Journal of Sexual Medicine

It will be about the sharing of updated clinical study result.

ED continues to evolve as a marker for male CV disease. Numerous reports now demonstrate that ED predicts CV in younger men. With respect to the PDE5i, tadalafil continues to clinical benefit in a variety of areas and remains well -tolerated. Treatment with tadalafil once daily significantly improves erectile function in men with mild to mild-moderate impairments in erectile function following PRN PDE5 inhibitor treatment. Further, irrespective of baseline severity, once-daily tadalafil 5 mg for 12 weeks compared with placebo significantly increased the mean: (1) IIEF-EF by 6.8; (2) percent successful penetration attempts from 70.1 to 91.3%; and (3) percent successful intercourse attempts from 33.4 to 76.8% (each $P<0.001$). Treatment-by-age-group interaction P-values for all three coprimary efficacy end points exceeded 0.10, indicating that tadalafil treatment effects did not differ by age <50 vs >50 years. Tadalafil was generally well tolerated.To investigate effects of once-daily tadalafil in men with no successful intercourse attempts at baseline, we conducted a post hoc, pooled-data analysis of four randomized, double-blind trials on the effects of tadalafil 2.5 or 5 mg (vs. placebo) in men with ED, we evaluated efficacy and safety in subjects with 0 "yes" responses to Sexual Encounter Profile question 3 (SEP3) during an initial 4-week treatment-free run-in period. Five hundred ninety-five subjects with no successful attempts at baseline were included in the analysis. The mean (± standard deviation) age was 58.2 ± 10.7 years; and most subjects had ED for ≥ 1 year (95.0%). ED was severe in 61.5% and moderate in 26.4%. Approximately 45% had diabetes mellitus or hypertension. After 12 weeks, the mean per-patient SEP3 percentage increased from 0% to 32.4% with tadalafil 2.5 mg and to 46.4% with tadalafil 5 mg (each $P < 0.001$ vs. placebo). The post-treatment intercourse success rate was 32% and 46% for tadalafil 2.5 mg and 5 mg, respectively, in men with no successful intercourse attempts at baseline.

Curriculum Vitae

Professor Sung Won LEE
Department of Urology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

Prof Sung Won Lee is a Professor in the Department of Urology of Samsung Medical Center in Sungkyunkwan University School of Medicine and the Chief of Urology at the Translational Research Center, which is supported by the Korean Ministry for Health and Welfare Affairs.

Prof Lee is currently the President of the Korean Society for Sexual Medicine and Andrology, Vice-President of the Korean Society of Fertility and Sterility, and Chair of Communication Committee of Asia Pacific Society for Sexual Medicine (APSSM).

To date, Prof Lee has published more than 30 scientific papers in international eerreviewed journals. He has participated actively as a speaker at many international symposiums, including the 4th GIAF 2010, the 2009 China-Korea Uro-Andrology Forum, the 3rd International Consultation on Sexual Medicine (ICSM) Meeting, the Sexual Medicine Society of North America (SMSNA) 2009 Fall Scientific Meeting, the 11th APSSM meeting, the 8th Asian Congress of Urology, the 10th APSSM meeting, and the inaugural NEFSIR Meeting in 2004.

G2

The Cornerstone of Premature Ejaculation – The Korean Experience

Sung Won Lee MD & PhD
Professor of department of Urology, Samsung Medical Center,
Sungkyunkwan University School of Medicine,
Seoul, Korea

Premature ejaculation (PE) is one of the most prevalent male sexual disorders and the global prevalence rates of PE estimated at approximately 20–30%. In Korea, the prevalence of PE is 17 to 27% according to different definitions. In PE patients, the frequency of sexual intercourse was decreased (less than 1 time ; 36.4 % in PE group vs. 20.6 % in non-PE group) and the stress in life was increased (serious stress ; 44.9 % in PE group vs. 29.6 % in non-PE group). The satisfaction level of sexual intercourse (in the category of very unsatisfactory or unsatisfactory) in PE males and non-PE males was 41.1% and 9.8%. PE had a negative impact on the subjects' overall relationships with their partners. Over half of the non-PE males thought that the frequency of their partner's organism during sexual intercourse was more than 50%, whereas most of the PE males thought that their partner did not achieve orgasm. From the results of nationwide survey which was run by the KSSMA in 2009 during the men's health week, PE patients show more than two times divorce rate than normal population. In treatment, SSRI was main treatment modality. More than 90 % of urologists treat PE patients with SSRI, and dapoxetine was most frequently prescribed medication (87.3%) followed by clomipramine, sertraline, fluoxetine and paroxetine. In market survey, 78 % of dapoxetine users felt satisfaction and 70 % of them felt prolonged IELT.

Lunch Symposium

The Cross between ED and BPH-LUTs.

Allen D. Seftel, MD
Chief, Division of Urology, Cooper University Hospital, Camden, NJ
Professor of Urology
Cooper Medical School of Rowan University, Camden, NJ
Editor, Classic citations, Journal of Sexual Medicine

Early studies demonstrated a epidemiologic link between ED and BPH. These included the MSAM-7. These studies clearly demonstrated that worsening LUTS was associated with worsening ED. This was true on a age-related basis. More recently, PDE5 has been identified in the both the bladder and the prostate suggesting targets for PDE5i. Disanto et al and others have identified the PDE5 enzyme in the prostate. Clinical trials have demonstrated that PDE5i do have a clinical benefit in treating both BPH/ LUTS. Tadalafil is ideal for the treatment of both BPH and ED due to its long duration of action. Clinical experience demonstrates that tadalafil is efficacious for the treatment of male ED and BPH, without any of the historic BPH side effects such as retrograde ejaculation.

三月一日（星期六）
成大醫學院 第二講堂
【紀念江萬煊教授傑出研究論文獎】

時間	內容	座長
16:10-16:20	1. 理事長介紹江萬煊教授傑出研究論文獎的由來 2. 江漢聲校長致詞 3. 頒發學會感謝狀 4.【紀念江萬煊教授傑出研究論文獎】頒獎	簡邦平醫師
16:20-16:30	【紀念江萬煊教授傑出研究論文獎】發表 題目：Is Female Sexual Function Related to the Male Partners' Erectile Function? 發表人：簡邦平醫師	

C1
【紀念江萬煊教授傑出研究論文獎】

Journal of Sexual Medicine 2013;10:420–429

Is Female Sexual Function Related to the Male Partners' Erectile Function?

Bang-Ping Jiann, MD[1,2], Cheng-Chen Su, MD[3], and Jeng-Yu Tsai, MD, PhD[4]
[1]Division of Basic Medical Research, Department of Medical Education and Research, Kaohsiung Veterans General Hospital; Kaohsiung, Taiwan,
[2]School of Medicine, National Yang-Ming University, Taipei, Taiwan.
[3]Department of Urology, Yuan's General Hospital, Kaohsiung, Taiwan,
[4]Division of Urology, Department of Surgery, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan

Introduction. There are limited data concerning the relationship between the sexual functioning of each partner in a heterosexual couple.

Aim. This cross-sectional study was to investigate the association between female sexual function and the male partners' erectile function.

Methods. Two self-administered questionnaires were used, one distributed to 2,159 female employees of two hospitals in Southern Taiwan and the other to their male partners, if available, to assess sexual function in each partner of the couple.

Outcome Measures. Female sexual function and male erectile function were assessed by the Female Sexual Function Index (FSFI) and by the International Index of Erectile Function (IIEF), respectively.

Results. Among the 1,580 female and 779 male respondents, 632 sexually active couples were eligible for the analysis with mean ages of 36.9 years (range 21–67) and 39.5 years (range 18–80) for the women and men, respectively. After adjustment for female age group, nearly all the FSFI and IIEF domain scores correlated significantly to a slight to moderate degree. On the basis of the FSFI and IIEF scores, 42.9% (255/594) of the women reported sexual difficulty, and 15.0% (96/632) of the men reported mild to moderate ED. After adjustment for female age group, the female partners of men with ED had significantly lower total and domain scores of the FSFI than those of men without ED, with effect sizes of $\eta_p^2 = .02–.08$. After further adjustment for other risk factors, ED of the male partner was still a significant risk factor for female sexual difficulty, as well as for sexual difficulty in the aspects of arousal, orgasm, sexual satisfaction, and sexual pain (odds ratio = 2.5–3.3).

Conclusions. Significant correlations between female sexual functioning and male erectile function were identified.

三月二日（星期日）
成大醫學院　第三講堂
【男性學論文獎發表】

座長：林信男醫師　楊文宏醫師　　【一般醫師 - 臨床組】

時間	內容
10:20-10:30 E1	財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第一名 Prediabetes is Associated with an Increased Risk of Testosterone Deficiency, Independent of Obesity and Metabolic Syndrome 發表人：何承勳醫師
10:30-10:40 E2	財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第二名 The Impact of Metabolic Syndrome on the Responsiveness to α1-blocker in Men with BPH/LUTS 發表人：李永進醫師
10:40-10:50 E3	財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第二名 Increased Risk of Large Post-void Residual Urine and Decreased Long-term Success Rate after Intravesical OnabotulinumtoxinA Injection for Refractory Idiopathic Detrusor Overactivity 發表人：廖俊厚醫師

座長：林信男醫師　楊文宏醫師　　【一般醫師 - 基礎組】

時間	內容
10:50-11:00 E4	輝瑞論文獎　基礎組 第一名 Evidences of the Inflammasome Pathway in Chronic Prostatitis and Chronic Pelvic Pain Syndrome in an Animal Model 發表人：陳志碩醫師
11:00-11:10 E5	輝瑞論文獎　基礎組 第二名 Metallothionein 3: An Androgen-Upregulated Gene Enhances Cell Invasion and Tumorigenesis of Prostate Carcinoma Cells 發表人：崔克宏醫師

三月二日（星期日）
成大醫學院　第二講堂
【男性學論文獎發表】

座長：林永明醫師　　【住院醫師 - 臨床組】

時間	內容
10:20-10:30 E6	友華論文獎　臨床組 第一名 Diurnal Temperature Change is Associated with Testicular Torsion: A Nationwide, Population Based Study in Taiwan 發表人：陳建升醫師
10:30-10:40 E7	友華論文獎　臨床組 第二名 Clinical Characteristics and Reproductive Outcomes in Infertile Men with Testicular Early and Late Maturation Arrest 發表人：蔡銘駿醫師

E1

財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第一名

Plos One September 2013,V.8, Issue 9, e74173

Prediabetes is Associated with an Increased Risk of Testosterone Deficiency, Independent of Obesity and Metabolic Syndrome

Chen-Hsun Ho[1,2], Hong-Jeng Yu[2], Chih-Yuan Wang[3], Fu-Shan Jaw[4], Ju-Ton Hsieh[2], Wan-Chung Liao[5], Yeong-Shiau Pu[2], Shih-Ping Liu[2]

[1]Graduate Institute of Clinical Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan

[2]Department of Urology, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan

[3]Department of Internal Medicine, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan

[4]Institute of Biomedical Engineering, National Taiwan University, Taipei, Taiwan

[5]Health Management Center, National Taiwan University Hospital, Taipei, Taiwan

Abstract

Objective: The association between type 2 diabetes and low testosterone has been well recognized. However, testosterone levels in men with prediabetes have been rarely reported. We aimed to investigate whether prediabetes was associated with an increased risk of testosterone deficiency.

Methods: This study included 1,306 men whose sex hormones was measured during a medical examination. Serum total testosterone and sex hormone-binding globulin were measured; free and bioavailable testosterone concentrations were calculated by Vermeulen's formula. Prediabetes was defined by impaired fasting glucose (IFG), impaired postprandial glucose (IPG), or glycated hemoglobin (HbA1c) 5.7%-6.4%. Logistic regression was performed to obtain the odds ratios (OR) for subnormal total testosterone (<300 ng/dL) or free testosterone (<6 ng/dL) in prediabetic and diabetic men compared with normoglycemic individuals, while adjusting for age, BMI, waist circumference, and metabolic syndrome (MetS).

Results: Normoglycemia, prediabetes, and diabetes were diagnosed in 577 (44.2%), 543 (41.6%), and 186 (14.2%) men, respectively. Prediabetes was associated with an increased risk of subnormal total testosterone compared to normoglycemic individuals (age-adjusted OR=1.87; 95%CI=1.38-2.54). The risk remained significant in all multivariate analyses. After adjusting for MetS, the OR in prediabetic men equals that of diabetic patients (1.49 versus 1.50). IFG, IPG, and HbA1c 5.7%-6.4% were all associated with an increased risk of testosterone deficiency, with different levels of significance in multivariate analyses. However, neither prediabetes nor diabetes was associated with subnormal free testosterone in multivariate analyses.

Conclusions: Prediabetes is associated with an increased risk of testosterone deficiency, independent of obesity and MetS. After adjusting for MetS, the risk equals that of diabetes. Our data suggest that testosterone should be measured routinely in men with prediabetes.

E2
財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第二名

Int J Clinical Practice, April 2013, 67, 4, 356-362

The Impact of Metabolic Syndrome on the Responsiveness to α1-blocker in Men with BPH/LUTS

Yung-Chin Lee, MD, PhD, Chia-Chu Liu, MD, PhD, Chii-Jye Wang, MD, PhD, Wen-Jeng Wu, MD, PhD, Hsin-Chih Yeh, MD, Chun-Nung Huang, MD, PhD, Chun-Hsiung Huang, MD, PhD, Shu-Pin Huang, MD, PhD,
Department of Urology, Kaohsiung Medical University Hospital, Department of urology, Faculty of medicine, College of medicine, Kaohsiung Medical University, Kaohsiung, Taiwan

Abstract

Aims: Increasing evidence has proposed the components of metabolic syndrome (MtS) as risk factors for the development of benign prostate hyperplasia (BPH); therefore, it is thought that MtS may play a role in lower urinary tract symptoms related to BPH (BPH/LUTS) etiology. Considering the closed relationships between MtS and BPH/LUTS, it is possible that patients with MtS might have different drug responsiveness in men with BPH/LUTS. We prospectively investigated the impact of MtS on responsiveness to α1-blocker in men with BPH/LUTS.

Methods: We enrolled a total of 109 patients with a mean (SD) age of 59.8 (9.0) years, having a prostate volume of 20 cm^3 or greater with moderate to severe LUTS. All patients received doxazosin-GITS (gastrointestinal therapeutic system) 4 mg once-daily for a 12-week period of treatment. The efficacy measurement was assessed by the changes from baseline in the total IPSS, maximum urinary flow rate and post void residual urine volume. The drug responders were defined as those who had a total IPSS decrease of more than 4 points from baseline after 12 weeks of treatment.

Results: Using multiple logistic regression analysis, our results showed that MtS was an independent factor for drug non-responder (OR=4.26, p=0.002). The rate of drug responder and total IPSS improvements in patients with MtS significantly decreased as the number of MtS components increased (p=0.012 and p=0.026). Among the MtS components, abnormal fasting blood glucose (FBG) was the most significantly independent factor for drug non-responder (OR=3.17, p=0.020).

Conclusion: This study suggested that the presence of MtS had a significantly negative impact on the responsiveness to α1-blocker in men with BPH/LUTS. Our results are important for BPH/LUTS patients who did not initially respond to α1-blocker or who strive to reduce these metabolic risk factors.

E3
財團法人鳳凰泌尿科學文教基金會論文獎　臨床組 第二名

J Urol. 2013 May;189(5):1804-10

Increased Risk of Large Post-void residual Urine and Decreased Long-term Success Rate after Intravesical OnabotulinumtoxinA Injection for Refractory Idiopathic Detrusor Overactivity.

Liao CH, Kuo HC.

PURPOSE: Intravesical injection of onabotulinumtoxinA is effective for idiopathic detrusor overactivity refractory to antimuscarinics. However, safety is a major concern, especially in elderly individuals. We investigated the efficacy and safety of intravesical onabotulinumtoxinA injection for refractory idiopathic detrusor overactivity in the frail elderly population.

MATERIALS AND METHODS: A total of 166 patients with urodynamic idiopathic detrusor overactivity refractory to previous antimuscarinics for more than 3 months received 1 intravesical 100 U onabotulinumtoxinA injection from 2004 to 2009. Frail elderly was defined as age greater than 65 years and 3 or more of certain criteria, including unintentional weight loss, self-reported exhaustion, weakness, slow walking speed and/or low physical activity. Treatment results were assessed by the Patient Perception of Bladder Condition, voiding diary, urodynamic parameters and Kaplan-Meier estimates of survival plots.

RESULTS: We evaluated 61 frail elderly patients, 63 who were elderly without frailty and 42 younger than 65 years. Large post-void residual urine volume (greater than 150 ml) after onabotulinumtoxinA injection was significantly higher in the frail elderly group than in the other groups (60.7% vs 39.7% and 35.7%, respectively, $p = 0.018$). Urinary retention developed in 7 frail elderly patients (11.5%), 4 (6.3%) who were elderly without frailty and 1 younger patient (2.4%) ($p = 0.203$). Recovery duration was significantly longer in frail elderly patients. The cumulative success rate was significantly lower in the frail elderly group than in the other 2 groups ($p = 0.009$).

CONCLUSIONS: Although safety and efficacy were similar between elderly patients without frailty and younger patients, an increased risk of large post-void residual urine volume and a lower long-term success rate in frail elderly patients were noted after intravesical onabotulinumtoxinA injection for refractory idiopathic detrusor overactivity.

E4

輝瑞論文獎　基礎組 第一名

Prostate 73:391-397, 2013

Evidences of the Inflammasome Pathway in Chronic Prostatitis and Chronic Pelvic Pain Syndrome in an Animal Model

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BACKGROUND: The mechanism of non-bacterial chronic prostatitis (CP / CPPS) has long been investigated but remains unclear. Under the hypothesis that abnormal response of innate immunity may be a cause of CP/CPPS, this study evaluated inflammasome, as part of innate immunity, and its effects on persist inflammation and CP/CPPS.

METHODS: Carrageenan was used to induce CP/CPPS in a rat animal model. After confirming tactile hyper-algesia in the rats, their local prostate inflammation status, and inflammasome expression were determined. The amount of inflammasome and its downstream protein was checked, along with prostate localization. Chlorogenic acid (CHA), an active ingredient of Chinese herbal remedy for CP/CPPS treatment, was used as treatment.

RESULTS: The rats had CP/CPPS once scrotal static tactile allodynia developed and CHA treatment relieved the scrotal hypersensitivity. Downstream inflammasome proteins like IL1ß and caspase 1 increased within the prostate and decreased with CHA treatment. Inflammasome, NALP1 but not NALP3, was significantly increased in the prostate glandular endothelial cells. Treatment with CHA also changed the distribution pattern of NALPI in the prostate.

CONCLUSIONS: There is a close relationship between activation of inflammasome and patho-physiologic changes of CP/CPSS in rats. Increased inflammasome may be a possible mechanism of CP/CPPS and clinically active regimen may inhibit the inflammasome-related pathway. This provides a new therapeutic rationale and approach for CP/CPPS treatment.

E5

輝瑞論文獎　基礎組 第二名

The Prostate 73:1495-1506 (2013)

Metallothionein 3: An Androgen-upregulated Gene Enhances Cell Invasion and Tumorigenesis of Prostate Carcinoma Cells.

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Abstract

BACKGROUND: Metallothioneins (MT1, MT2, MT3, and MT4) are regarded as modulators regulating a number of biological processes including cell proliferation, differentiation, and invasion. We determined the effects of androgen, cadmium, and arsenic on MT1/2 and MT3 in prostate carcinoma cells, and evaluated the functional effects of MT3 on cell proliferation, invasion, and tumorigenesis.

METHODS: We determined the expression of MT1/2 and MT3 in prostate carcinoma cells by immunoblotting assays or real-time reverse transcription-polymerase chain reactions. The effects of ectopic MT3 overexpression or MT3-knockdown on cell proliferation, invasion, and tumorigenesis were determined by (3) H-thymidine incorporation, matrigel invasion, and murine xenograft studies. The effects of androgen, cadmium, and arsenic on target genes were assessed using immunoblotting and reporter assays.

RESULTS: Androgen, cadmium, and arsenic treatments enhanced gene expression of MT1/2 and MT3 in prostate carcinoma LNCaP cells. Results of immunohistochemical staining indicated MT3 overexpression was found predominantly in the nuclear areas of PC-3 cells overexpressing MT3. Overexpression of MT3 significantly increased cell proliferation, invasion, and tumorigenic activities in PC-3 cells in vitro and in vivo. MT3 overexpression downregulated the gene expressions of N-myc downstream regulated gene 1 (Ndrg1) and maspin, and attenuated blocking effects of doxorubicin in PC-3 cells on cell proliferation. MT3-knockdown enhanced Ndrg1 and maspin expressions in LNCaP cells.

CONCLUSIONS: The experiments indicate that MT3 is an androgen-upregulated gene, and promotes tumorigenesis of prostate carcinoma cells. The downregulation of Ndrg1 and maspin gene expressions appears to account for the enhancement of proliferative and invasive functions of MT3 in PC-3 cells.

E6

友華論文獎　臨床組 第一名

Urology 190:228-233, 2013

Diurnal Temperature Change is Associated with Testicular Torsion – A Nationwide, Population Based Study in Taiwan

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Purpose: We investigated the association between climatic variables and testicular torsion in Taiwanese males.

Materials and Methods: Using the Taiwan Longitudinal Health Insurance Database, we reviewed the files of patients who were diagnosed with testicular torsion and underwent orchiectomy or orchiopexy between January 1996 and December 2008. Children younger than 1 year were excluded from the study. Climatic data were provided by the Taiwan Central Weather Bureau and included ambient temperature, relative humidity, diurnal temperature change and barometric pressure. Patients with acute appendicitis who underwent appendectomy were chosen as the control group. Climatic variables in relation to testicular torsion were analyzed using the Mann-Whitney U test and chi-square test, and seasonal climatic variations using the Kruskal-Wallis H test. Relative risk was calculated to compare the incidence of testicular torsion for diurnal temperature changes.

Results: A total of 65 patients with a mean age of 16.2 years presented with testicular torsion and were treated surgically. Four children younger than 1 year were excluded, and thus the study population consisted of 61 patients. The estimated incidence of testicular torsion was 2.58 per 100,000 person-years. There were no special climatic conditions on days of admission. However, 73.7% of the patients had testicular torsion when the diurnal temperature change was 6C or greater. Compared to the torsion rate for diurnal temperature changes less than 6C, the relative risk of testicular torsion at 6C or greater was 1.8 ($p = 0.05$). Average seasonal diurnal temperature change in the 2 days before hospitalization showed increases in all seasons except spring, which fluctuated.

Conclusions: Diurnal temperature change was associated with testicular torsion and may be an etiological climatic factor affecting this condition. This is the first known study to demonstrate an association between diurnal temperature change and testicular torsion.

E7

友華論文獎　臨床組 第二名

Journal of Urology 80: 826-832, 2012

Clinical Characteristics and Reproductive Outcomes in Infertile Men with Testicular Early and Late Maturation Arrest

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Abstract

Objective To compare the clinical characteristics and reproductive outcomes of non-obstructive azoospermic men with uniform early and late maturation arrest (MA).

Methods Patients with biopsy-documented uniform MA undergoing testicular sperm retrieval and complete medical records were enrolled in the present study. Their medical history, physical examination findings, testicular volume, serum hormone parameters, genetic anomalies, sperm retrieval, and reproductive outcomes were retrospectively analyzed.

Results In a cohort of 223 non-obstructive azoospermic men, 34 men with uniform MA (21 early MA and 13 late MA) were identified. There were no significant differences in the age distribution, testicular volume, or hormone parameters between patients with early and late MA. Only 13 (38.2%) patients had a normal serum follicle-stimulating hormone level and normal testicular volume. Patients with early MA had a greater frequency of overall genetic anomalies, and patients with late MA had a greater frequency of previous testicular insults. The sperm retrieval and impregnation rate were non-significantly greater in patients with late MA.

Conclusions MA has a variety of causes and presents with diverse phenotypes. Not all patients with uniform MA have a normal FSH level or testicular volume. Patients with early MA have a higher incidence of genetic anomalies and are more likely to have worse reproductive outcomes than are patients with late MA.

三月一日（星期六）
成大醫學院 第三講堂
【Round Table 1】

Individually Tailore Erectile Dysfunction Therapy			
時間	內容	主講人	座長
13:20-13:35	The Evaluation and Solution of ED for Young Patients	陳　煜醫師	謝汝敦醫師 劉家駒醫師
13:35-13:50	Sexual Dysfunction in Infertile Couple	蔡維恭醫師	
13:50-14:05	Male Sexual Dysfunction and Depressive Disorders	趙建剛醫師	
14:05-14:20	Clinical Update about ED Therapy in Diabetic Patients	曹智惟醫師	

三月二日（星期日）
成大醫學院 第三講堂
【Round Table 2】

Update in Prostate Disease and Sex Health			
時間	內容	主講人	座長
08:00-08:20	Prostatitis, Chronic Pelvic Pain Syndrome and Sexual Function	陳修聖醫師	吳季如醫師 郭育成醫師
08:20-08:40	Metabolic Disorders and BPH	廖俊厚醫師	
08:40-09:00	Hypogonadism and Voiding Dysfunction in Male	黃志賢醫師	
09:00-09:20	PDE-5 Inhibitors and BPH/LUTS	蔡德甫醫師	

【Round Table 1】

The Evaluation and Solution of ED for Young Patients

陳　煜醫師
林口長庚紀念醫院

Erectile dysfunction (ED) is the inability to attain or maintain an erection of the penis adequate for the sexual satisfaction of both partners. It can be devastating to the self-esteem of a man and of his partner especially to the young one. Although most erectile dysfunction complaints are among men above the age of 40 and prevalence increases with age, the number of young men suffering from erectile dysfunction may be much higher than previously thought according to a new analysis, published in *The Journal of Sexual Medicine*. Paolo Capogrosso, MD, of the University Vita-Salute San Raffaele, in Milan, Italy, and his team have identified that one quarter of men seeking help for ED are younger than 40 and half of these men reported severe ED at an academic outpatient clinic between January 2010 and June 2012. Similar observation was found at our men's health clinic in Chang Gung Memorial Hospital.

Other than physical disorders (such as vascular cause, hormonal imbalances, nervous system, surgical complications, and medications for high blood pressure, cancer, or depression etc.), with younger men, psychological problems are the likeliest reason for erectile dysfunction when compared with the older men. Tension and anxiety may arise from poor communication with the sexual partner or a difference in sexual preferences. The sexual difficulties in young may also be linked to these factors: Depression; fatigue; stress; late sleeping; feelings of inadequacy; personal sexual fears; rejection by parents or peers; and sexual abuse in childhood. In addition, alcohol, tobacco, and illegal drugs, such as marijuana, may contribute to the dysfunction in the young too. As a result, the doctor should typically interviews the patient about various physical and psychological factors and performs a physical examination, irrespective of their age.

Many physical and psychological situations can cause erectile dysfunction, and brief periods of ED are normal. Nevertheless, if the problem is persistent, young men should seek professional help just like the older men, particularly since erectile dysfunction is usually treatable in this young group and may also be a symptom of an underlying health problem. It is important to treat any medical condition that may be causing erectile dysfunction just like the older group. PDE5 inhibitors and hormonal balance therapy are the choices for erectile dysfunction in young men too. Some form of psychological, behavioral, or sexual therapy may be recommended for certain patients. No matter what the treatment, embarking on a healthy lifestyle is the first and critical step for restoring and maintaining erectile function in men with any age. Diet control and a regular exercise program are helpful. Of course, men who drink alcohol should do so in moderation and quitting smoking is essential. Staying sexually active may help prevent erectile dysfunction because frequent erections stimulate blood flow to the penis. If medications are causing ED, the patient and doctor should discuss alternatives or reduced dosages. If the first line treatment is failure, second or third lines therapies included medications injected into the penis, vacuum devices using, or even surgery can be considered too just like the older men with erectile dysfunction.

【Round Table 1】

Sexual Dysfunction in Infertile Couple

Tsai, Wei-Kung MD.
Mackay Memorial Hospital

Sexual Dysfunction in Infertile Couple

TSAI, WEI-KUNG MD.
Mackay Memorial Hospital

Introduction

- Couple infertility is defined by WHO as the inability of a sexually active couple to achieve pregnancy despite unprotected intercourse for a period greater than 12 months.
- According to WHO definition, the prevalence of infertile couples ranges from 4% to 17%

  Tuttelmann F, Andrology. Male reproductive health and dysfunction. 3 edition. Berlin: Springer, Verlag; 2010:87–92;
  Krausz C. Male infertility: Pathogenesis and clinical diagnosis. Best Pract Res Clin Endocrinol Metab 2011;25:271–85
- Although ED and PE are common male sexual dysfunctions, their prevalence in infertile men have been investigated only by a few authors.
- Validated instruments were just using in fewer studies.

Four types of interactions

There are four types of interactions between sexuality and infertility in the chronological sequence:

- Sexual dysfunctions as a cause for infertility
- sexual dysfunctions as a consequence of infertility
- the influence of reproductive medical treatment on sexuality
- the effects of permanent involuntary childlessness on sexuality.

Sexual dysfunctions as a cause for infertility

- Sexual disorders are rarely the reason for fertility disorders in males. In half of all cases, erection or ejaculation dysfunctions result from an underlying organic disease or from medication.

  Donckers J, . Hum Reprod 2009;24:i194.
  Brandes M, . Hum Reprod 2010;25:118–26.
- According to the report from Strauß et al, psychogenic sexual dysfunctions are one of the three causative factors operative in psychological fertility dysfunctions.

sexual dysfunctions as a consequence of infertility

- A recent comparative study of infertile couples and couples prior to sterilization found that a higher percentage of the men in the first group suffered from sexual disorders and greater dissatisfaction with their sex lives than the men in the control group

  Monga M, Impact of infertility on quality of life, marital adjustment, and sexual function. Urology 2004;63:126–30.
- But in other studies couples wanting a child report greater sexual pleasure and more frequent sexual intercourse in comparison to the corresponding norms

  Takefman JE, J Psychosom Obst Gyn 1990;11:275–90

The Influence of Reproductive Medical Therapy on Sexuality

- The long period of diagnostic and treatment procedures may also have a negative impact on the sex life of the infertile couples

  Lenzi A. J Endocrinol Invest 2003;26(3 Suppl):72–6
- A study on 206 infertile couples (compared with 190 fertile couples) could also show that diagnosed male infertility correlated with the lowest average intimate life satisfaction, both in the groups of women and men.

  Drosdzol A, Skrzypulec V. J Sex Med 2009;6:3335–46.
- The couple is asked to have sexual intercourse at the time of ovulation.
- As many as 45.4% of 487 men interviewed at a reproductive medicine clinic reported that sex "by the clock" is stressful

  Grieb J. Fertilitat 1997;13:39–45

- Nearly two-thirds of the men involved in it were affected by (temporary) erectile dysfunctions after diagnosis for azoospermia

Berger DM. Impotence following the discovery of azoospermia. Fertil Steril 1980;34:154–6.

- According to a study conducted in an andrological clinic, as many as 11% of the probands were unable to produce the sperm needed for a second spermiogram after having been told about sperm-quality deficits identified in the first

Saleh RA. Fertil Steril 2003;79:909–12

Incidence of ED

- The prevalence of ED among men younger than 40 years of age was described in several studies, although not exclusively in young men, and only in small populations, hence, it varies a great deal (2–27%) [34,35].
- Ponholzer et al. analyzed a total of 2,869 men. According to the IIEF-5 score, 32.2% reported on any degree of ED, (23.7% had mild ED, 5.0% mild to moderate ED, 2.2% moderate ED, and 1.3% severe ED)

Ponholzer A., Eur Urol 2005;47:80–5

- The incidence of ED was found in infertility couples is 43 (17.8%) and PE in 38 (15.6%) subjects. It was at least double that observed in the general Italian population when subjects with a similar mean age are considered

Francesco Lotti, The Journal of Sexual Medicine. 2012;10:pages 2698–2707

- Shindel AW reported that there were 18% who had mild erectile dysfunction and 4% had moderate erectile dysfunction. more than twice as many as in the overall population

Shindel AW. J Urol. 2008 Mar;179(3):1056-9

Incidence of ED

- In a study from China, the incidences of ED in the infertile group (1468) were significantly higher than those in the fertile group (942) (ED:IIEF-5 score <22: 18.05% vs. 8.28%, $P < 0.001$).
- the mean scores of IIEF-5 for infertile and fertile men were 21.24 ± 6.17 and 23.28 ± 4.25, respectively ($P = 0.012$).
- A total of 265 (18.05%) infertile men reported overall ED. 180 infertile men reported a mild form (IIEF-5 score 12 to 21), 85 a moderate form (score 8 to 11), whereas no patients reported a severe form (score 5 to 7).

Jingjing Gan MM, **The Journal of Sexual Medicine: 10(8)**:1935–1942, August 2013

Incidence of PE

- In men aged 18–39, the rough age of men in general population, Laumann reported a 30–32% prevalence of PE, with emotional stress significantly related to the presence of PE.
- According to some studies, premature ejaculation is two to three times more common in infertile men than in the general population.
- Jain et al. found high rates of a variety of sexual problems including a 66% incidence of self-reported PE

Jain K., Indian J Med Sci 2000;54:1–7.

- Fifty percent of men reported that they ejaculated more rapidly than they wished. When men reported PE, their partners agreed with the diagnosis in 47% of cases

Alan W. Shindel MD, **The Journal of Sexual Medicine 5(2)**485–491, February 2008

- In the study from China, the incidences of PE and ED in the infertile group were significantly higher than those in the fertile group (PE: 19.01% vs.10.93%, $P < 0.001$).
- In the infertile group, the PEDT diagnosed PE (score ≥ 11) in 7.08% (104/1468) of the respondents and probable PE (score 9–10) in a further 11.92% (175/1468) of the sample.

Jingjing Gan MM, **The Journal of Sexual Medicine: 10(8)**:1935–1942, August 2013

Table 2 PEDT, IIEF-5, SAS, and SDS scores and IELT for men with and without infertility

	Infertile men	Fertile men	P
PEDT, scores			<0.001
≤8	1,189 (80.99)	839 (89.07)	
9–10	175 (11.92)	67 (7.11)	
≥11	104 (7.08)	36 (3.82)	
Mean ± SD	[illegible]	[illegible]	[illegible]
IELT, minutes			<0.001
<1	165 (11.24)	73 (7.75)	
1–<2	279 (19.00)	129 (13.69)	
2–<5	[illegible]	[illegible]	
≥5	221 (15.05)	182 (19.32)	
Mean ± SD, seconds	[illegible]	[illegible]	[illegible]

Risk Factors

- Psychological stress is the major ED risk factors in infertility couple.
- There was no correlation between demographic factors (Female age, Male age, Duration of infertility, Female education, Male education, Type of infertility, Salary of family) and ALL domains of IIEF.
- However, only a 3% of variation of desire domain score could be predicted by the factor of female education.

Afsaneh Khademi MD, **The Journal of Sexual Medicine**, 5(6): 1402–1410, June 2008

Depression

- infertile men may develop feelings of inadequacy, anxiety, guilt, and depression.
- "vicious circle" effect (performance anxiety—inhibition—erectile dysfunction—feeling of shame and failure—performance anxiety).
- The diagnosis of depression was made in 42.9% of infertile men in the Middle East.

Hamed Ahmadi , The Journal of Sexual Medicine, 8(3): 824–830, March 2011

- Another USA study showed 11% and 12% of the men surveyed reported moderate or severe depression.

Shindel AW. J Urol. 2008 Mar;179(3):1056-9

- The association between ED and depressive symptoms retained significance. No matter overall (EFD < 26) or more severe (EFD < 22) ED in infertile men is mainly associated with depression (MHQ-D score).

Francesco Lotti, The Journal of Sexual Medicine, 2012;10: 2698–2707

Depression

- According to the outcomes of China, 38.01% (558/1468) and 15.74% (231/1468) of infertile men were diagnosed with anxiety and depression by the scores of SAS and SDS.
- The SAS and SDS scores were independently positively associated with the PEDT scores, but negatively correlated with IELT and IIEF-5 scores.

Table 3. Associations between the outcomes of the measures for sexual dysfunction and psychological distress

	PEDT		IELT		IIEF-15	
	Adjusted r	P	Adjusted r	P	Adjusted r	P
SAS	0.57	<0.001	−0.40	<0.001	−0.49	<0.001
SDS	0.54	<0.001	−0.52	<0.001	−0.50	<0.001

PEDT = Premature Ejaculation Diagnostic Tool; IELT = the intravaginal ejaculatory latency time; IIEF-15 = the international index of erectile function-5; SAS = Self-rating Anxiety Scale; SDS = Self-rating Depression Scale

Jingjing Gao MM, **The Journal of Sexual Medicine: 10(8)**:1935–1942, August 2013

Sexual Relationship

- Besides the effects on the sexual aspect, infertility was also found to be associated with the emotional well-being of many individuals and couples of reproductive age.
- follow-up interviews of 116 women 2 to 3 years after (successful and unsuccessful) infertility treatment indicated that while 37% of them said that the experience had a positive influence on their relationship, 59% reported a negative impact on their sexual relationships.

Hammarberg K. Hum Reprod 2001;16:374–83

- there was a significant negative relationship between sexual relationship status (per the SEAR) and PE.
- ? In multivariate analysis white race and partner Female Sexual Function Index score were significant predictors of International Index of Erectile Function Erectile Function Domain scores (p <0.01).

Andropause Symptoms

- 38% of infertility male reported significant andropause symptoms and 28% had abnormal SHIM scores. Of the subgroup of infertile men with nonobstructive azoospermia, 25% reported andropause symptoms.
- In a comparative study, the prevalence of ED and andropause symptoms was significantly greater in the population of infertile men compared with that of men with proven fertility (28% vs. 11%, $P < 0.01$)

O'brien JH, Erectile dysfunction and andropause symptoms in infertile men. J Urol 2005;174:1932–4.

- Among hormonal parameters, a positive association between total PEDT score and calculated free testosterone levels was observed.

Francesco Lotti, The Journal of Sexual Medicine, 2012;10: 2698–2707

The Barrier of Treatment

- The majority of infertile men (approximately 62%) could not recognize the relationship between sexual dysfunction and psychological distress.
- They avoided or ignored their sexual problems deliberately when seeking fertility treatment.
- The other way, Many infertility males seek clinical ED treatment without talking about the infertility issue.
- Many physicians were unaware of the relationship between sexual dysfunction and psychological distress in infertile men.

Conclusion

- ED and PE should be ruled out in infertile patients. The prevalence of ED, but not of PE, appears higher in infertile men than in the general population.
- Infertile men reported higher rates of anxiety and depression than fertile men. Infertility also have a negative impact on their sexual relationships.
- Many infertility males seek clinical ED treatment without talking about the infertility issue, and patients also ignored their sexual problems when seeking fertility treatment.

【Round Table 1】

Male Sexual Dysfunction and Depressive Disorders

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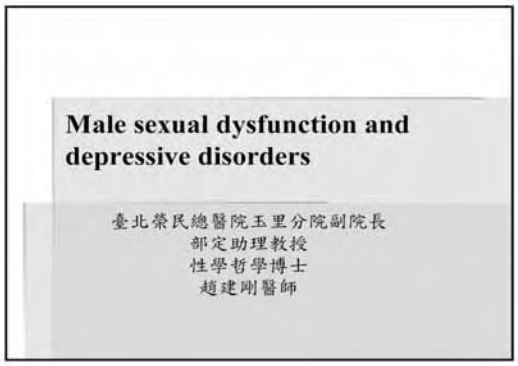
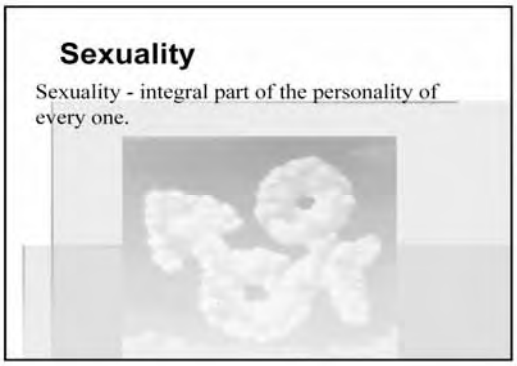
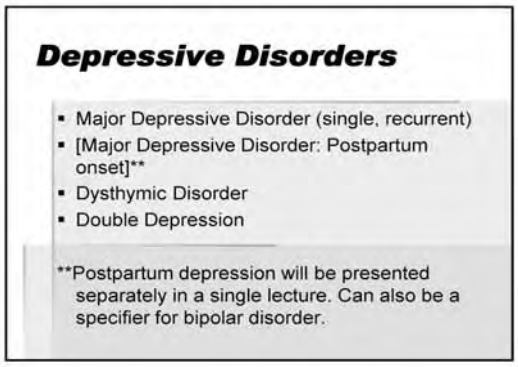
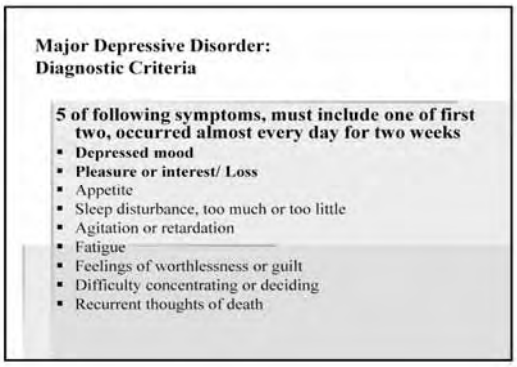
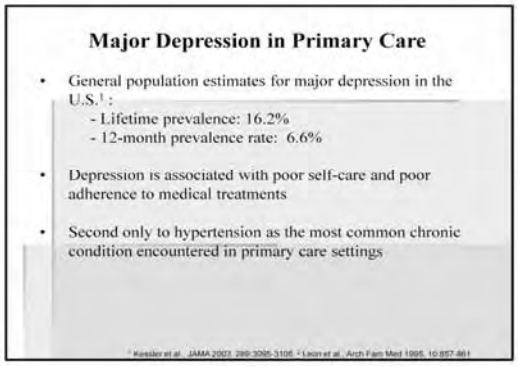
臺北榮民總醫院玉里分院副院長
部定助理教授
性學哲學博士

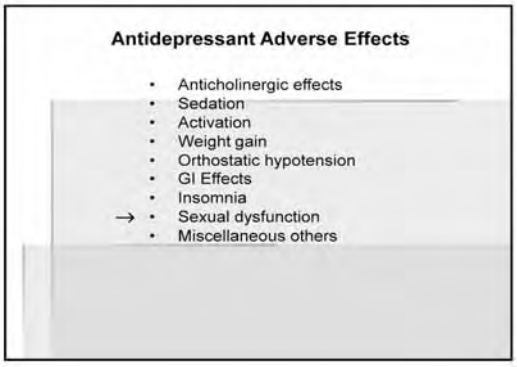












Sexual Dysfunction in Major Depression

- Sexual functioning is often impaired in MDD due to diminished ability to experience pleasure
- Antidepressant treatment of MDD can cause or worsen sexual dysfunction
- Antidepressant-induced sexual dysfunction can exacerbate depression and may influence the patient to discontinue antidepressant treatment

Impaired Sexual Functioning in MDD Prior to Antidepressant Treatment

- Kennedy et al. (1999) studied 55 male and 79 female patients who met DSM-IV criteria for MDD; ages 18-64 years
- Assessed past month sexual functioning prior to initiation of antidepressant treatment
- 39 women (49%) and 14 men (26%) reported no sexual activity in past month

Sexual Dysfunction	Females	Males
Decrease in sexual drive	50%	42%
Arousal problems / ED	50%	46%
Delayed ejaculation	-	22%

Source: Kennedy et al., J Affective Disorders, 1999, 56:201-208

Impaired Sexual Functioning in MDD Subsequent to SSRI Treatment

- Hu et al. (2004) studied 401 patients, 18-40 years old, receiving SSRI treatment (paroxetine, fluoxetine, sertraline, or citalopram)
- Assessed 17 SSRI side effects including sexual dysfunction in a phone interview 75 to 105 days of starting SSRI treatment

Sexual Dysfunction (SD) Measure	Percentage
% experiencing SD	34%
% experiencing bothersome SD	17%
SD occurred during first two weeks*	70%
SD continued for 3 months*	83%

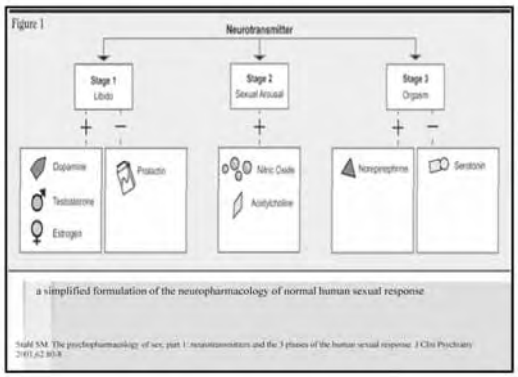
*Includes only patients reporting SD

Source: Hu et al., J Clin Psychiatry, 2004, 65:958-965.

Prevalence of Antidepressant-Induced Sexual Dysfunction

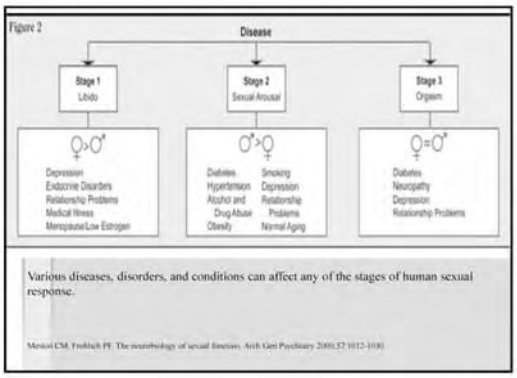
- Clayton et al. (2002) examined a target population of 802 primary care patients who met the following criteria: 18-40 years old; no sexual side effects from previous antidepressant tx; on medication at least 3 months; no medications or illnesses causing SD; history of at least "some" sexual enjoyment
- Percentage of target population reporting sexual dysfunction:
  - ≈30% - citalopram and venlafaxine
  - ≈27% - sertraline and paroxetine
  - ≈22% - fluoxetine
  - ≈ 7% - bupropion

Source: Clayton et al., J Clin Psychiatry, 2002, 63:357-366



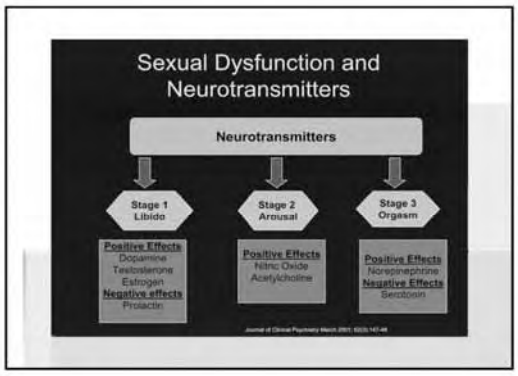
a simplified formulation of the neuropharmacology of normal human sexual response

Stahl SM. The psychopharmacology of sex, part 1: neurotransmitters and the 3 phases of the human sexual response. J Clin Psychiatry 2001;62:80-8



Various diseases, disorders, and conditions can affect any of the stages of human sexual response.

Meston CM, Frohlich PF. The neurobiology of sexual function. Arch Gen Psychiatry 2000;57:1012-1030


Sexual Dysfunction and Neurotransmitters
Neurotransmitters
Stage 1 Libido
Stage 2 Arousal
Stage 3 Orgasm
Positive Effects
Dopamine
Testosterone
Estrogen
Negative effects
Prolactin
Positive Effects
Nitric Oxide
Acetylcholine
Positive Effects
Norepinephrine
Negative Effects
Serotonin

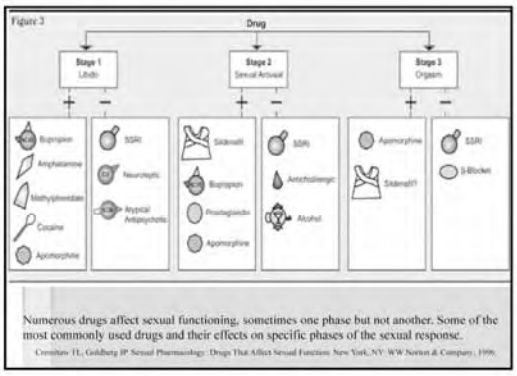
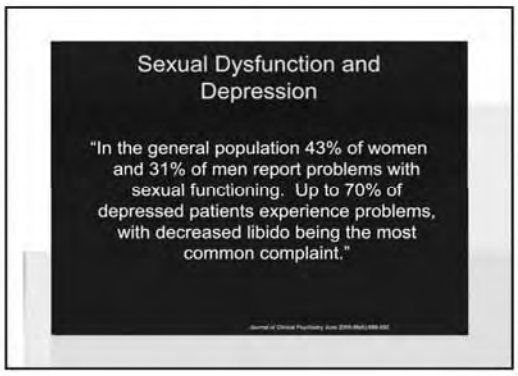
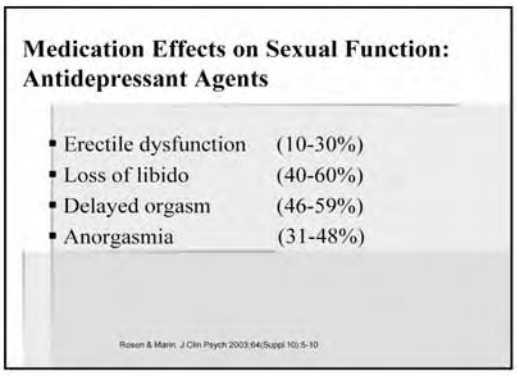
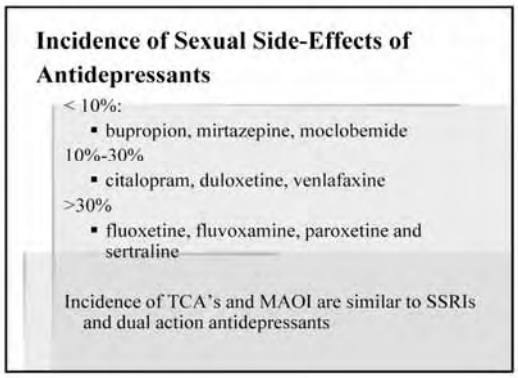
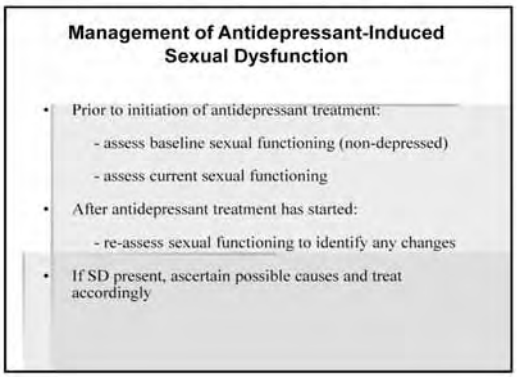


Figure 3
Drug
Stage 1 Libido
Stage 2 Sexual Arousal
Stage 3 Orgasm
Bupropion
Amphetamine
Methylphenidate
Cocaine
Apomorphine
SSRI
Neuroleptic
Atypical Antipsychotic
Sildenafil
Bupropion
Prostaglandin
Apomorphine
SSRI
Antcholinergic
Alcohol
Apomorphine
Sildenafil
SSRI
β-Blocker
Numerous drugs affect sexual functioning, sometimes one phase but not another. Some of the most commonly used drugs and their effects on specific phases of the sexual response.


Sexual Dysfunction and Depression
"In the general population 43% of women and 31% of men report problems with sexual functioning. Up to 70% of depressed patients experience problems, with decreased libido being the most common complaint."


Medication Effects on Sexual Function: Antidepressant Agents
Erectile dysfunction (10-30%)
Loss of libido (40-60%)
Delayed orgasm (46-59%)
Anorgasmia (31-48%)
Rosen & Marin. J Clin Psych 2003;64(Suppl 10):5-10


Incidence of Sexual Side-Effects of Antidepressants
< 10%:
bupropion, mirtazepine, moclobemide
10%-30%
citalopram, duloxetine, venlafaxine
>30%
fluoxetine, fluvoxamine, paroxetine and sertraline
Incidence of TCA's and MAOI are similar to SSRIs and dual action antidepressants


Management of Antidepressant-Induced Sexual Dysfunction
Prior to initiation of antidepressant treatment:
- assess baseline sexual functioning (non-depressed)
- assess current sexual functioning
After antidepressant treatment has started:
- re-assess sexual functioning to identify any changes
If SD present, ascertain possible causes and treat accordingly

Management of SSRI-Induced Sexual Dysfunction

- If SD is SSRI-induced, consider treatment options:

SD Management Strategy	Comments
Wait for tolerance to develop	Low success rate
Reduce the dose	Risk for relapse of depression
Drug holiday	Pt may discontinue drug
Switch to another medication	Limited evidence
Add another medication	e.g., bupropion; sildenafil
Combinations of the above	Limited evidence base

Summary

- Antidepressant-induced sexual dysfunction (SD) is very common
- SSRIs have the highest incidence of treatment-emergent SD
- When treating depressed patients with or without antidepressants, it is important to assess usual sexual functioning as well as any changes in sexual functioning associated with the onset of depression and/or the use of medications
- Consider initial use of antidepressants with lower incidence of SD
- Follow-up with patients to monitor medication efficacy and side effects
- Carefully assess and treat SD no matter what the cause(s)
- The evidence base for most SD treatments is quite limited

Conclusion

- Sexual problems are not distinctly organic or psychogenic, but instead are biopsychosocial phenomena.
- Sexual disorders have mixed biopsychosocial etiologies and frequently occur comorbidity with medical and psychiatric illness.

Thank you for listening. Questions or comments?

【Round Table 1】

Clinical Update about ED Therapy in Diabetic Patients

曹智惟醫師
三軍總醫院泌尿科

Erectile dysfunction (ED) was defined as the inability of the male to attempt and maintain erection of penis sufficient to permit satisfactory sexual intercourse. Prevalence of impotence in diabetic men was reported from 30～90%. The pathophysiology of diabetes-induced erectile dysfunction was multi-factorial and no single etiology is illustrated totally. The proposed mechanisms of erectile dysfunction in diabetic patients included elevated advanced glycation end-products, increased levels of oxygen free radicals and reactive oxygen species, impaired nitric oxide synthesis, increased endothelin B receptor binding sites, up-regulated RhoA/Rho-kinase pathway and impaired cyclic guanosine monophosphate (cGMP)-dependent protein kinase-1 etc. The treatment of diabetes-induced erectile dysfunction was multimodal. Treatment of the underlying hyperglycemia and comorbidities was of utmost importance to prevent the progression of disease. Oral medications with phosphodiesterase type 5 inhibitor (PDE5i) are considered as the first line therapy for management of diabetes-induced erectile dysfunction. If oral agents with PDE5i cannot be used or have insufficient efficacy despite appropriate dosing and education, second-line treatments with transurethral prostaglandins, intra-cavenorsal injections, vacuum devices should be addressed. When there was lack of efficacy or when there was dissatisfaction with other modalities, penile prostheses were often the best alternative for ED and considered as the third line therapy for diabetes-induced erectile dysfunction treatment. Furthermore hypogonadism was commonly found in diabetic patients, may required identification and treatment. Optimized glycemic control, management of associated co-morbidities and lifestyle modifications were essential in all those patients.

【Round Table 2】

Prostatitis, Chronic Pelvic Pain Syndrome and Sexual Function

陳修聖醫師
台北市立醫院仁愛院區泌尿科

Chronic prostatitis and chronic pelvic pain syndrome is a common disease that affecting almost 50% of men at some time point and up to 15% of all men (1). It is characterized by pain in the lower abdomen, pelvic area, perineal area and genital region, presented as both irritative and obstructive lower urinary tract syndrome in the absence of urinary tract infection (2, 3). It is the most common urologic diagnosis in men younger than 50 years old and the third most common disease found in men older than 50 years old (4). Recently, several studies evaluated the prevalence of sexual function and premature ejaculation in patients with chronic pelvic pain syndrome. The aim of this brief review will discuss the prevalence, pathophysiologic mechanisms and treatment of sexual dysfunction in patients with chronic prostatitis/chronic pelvic pain syndrome.

Prevalence

The symptoms of chronic prostatitis/chronic pelvic pain syndrome are decreased sexual desire, pain during or after sexual intercourse, pain at ejaculation, partial to complete sexual dysfunction, and premature ejaculation. In 2001, Blanker et al reported that ejaculatory pain were found in about 74% in men with chronic prostatitis/chronic pelvic pain syndrome patients along with worse quality of life (5). Premature ejaculation is also a common problem is men with chronic prostatitis/chronic pelvic pain syndrome, prostate inflammation and acute bacterial prostatitis (6). In 2005, Gonen et al reported a cohort study of 66 patients with chronic prostatitis/chronic pelvic pain syndrome (7). The incidence of premature ejaculation was 77% in patients with chronic prostatitis/chronic pelvic pain syndrome and premature ejaculation with erectile dysfunction was found in 15% of patients. In 2012, Chung et al reported the incidence of erectile dysfunction was higher in patients with chronic prostatitis/chronic pelvic pain syndrome (8).

Mechanism

Erectile dysfunction has a multi-factor etiology and organic, vascular, neurogenic and psychogenic factors might involve in the pathophysiology of erectile function. The relationship between erectile dysfunction and chronic prostatitis/chronic pelvic pain syndrome will be discussed since only a few studies addressing this issue. In 2011, Shoskes et al reported that patients with chronic prostatitis/chronic pelvic pain syndrome had higher incidence of arterial stiffness, which might result in the decrement of arterial inflow (9). In 2004, Pontari et al reported that patients with

chronic prostatitis/chronic pelvic pain syndrome have high incidence to have a neurologic disease (10). In 2007, Kramer et al reported interleukin 15 and interferon gamma were two main pro-inflammatory cytokines identified in animal models of chronic prostatic inflammation (11). In 2008, Pontari et al reported that several inflammatory markers might correlate to chronic pelvic pain syndrome (12). However, the real mechanism has yet to be determined. In addition to the vasculogenic, neurogenic and inflammatory factors, some patients with erectile dysfunction were attributed to psychogenic factors. In 2012, Shoskes et al reported that patients with chronic prostatitis/chronic pelvic pain syndrome had a higher incidence to develop stress, anxiety and maladaptive responses to stressful situations (13). In 2008, Aubin et al reported that psychogenic factors have a high impact on sexual lives in patients with chronic prostatitis/chronic pelvic pain syndrome (14). It was reported that not only decline of erectile function, but also decreased frequency of sexual activities in patients with chronic pelvic pain syndrome.

Treatment

There are only a few studies investigating the treatment effect in patients with both chronic prostatitis/chronic pelvic pain syndrome and erectile dysfunction. In 2006, Anderson et al reported that pelvic floor relaxation therapy might have positive impact on erectile function in patients with chronic prostatitis/chronic pelvic pain syndrome (15). In 2006, Nickel et al reported that alfuzosin 10 mg once daily might improve lower urinary tract symptoms, sexual function and quality of life in patients with chronic prostatitis/chronic pelvic pain syndrome (16). In 2011, Faydaci et al reported that doxazosin has a beneficial effect on both lower urinary tract symptoms and erectile function in patients with chronic prostatitis/chronic pelvic pain syndrome (17). However, there was no large scale, open labeled study investigating the real treatment outcomes on erectile function in patients with chronic prostatitis/chronic pelvic pain syndrome. The future work should focus on the elucidations about pathophysiology of chronic prostatitis/chronic pelvic pain syndrome The therapy focuses on erectile dysfunction in patients with chronic prostatitis/chronic pelvic pain syndrome will have a significant role to help patients with chronic prostatitis/chronic pelvic pain syndrome.

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【Round Table 2】

Metabolic Disorders and BPH

Chun-Hou Liao

Benign prostatic hyperplasia (BPH) is a focal enlargement of the periurethral region of the prostate seen in most aging men, which results in symptoms requiring clinical intervention in approximately a third of men over the age of 60. BPH has been tied to a larger collection of symptoms including frequency of urination, urgency, urinary incontinence, waking up multiple times at night to void (nocturia), weakened urinary stream, straining to void, and a sense of incomplete emptying of the bladder. These morbidities have been grouped together under the general descriptor, Lower Urinary Tract Symptoms (LUTS).

Co-morbidities commonly seen in patients with BPH/LUTS include obesity and type 2 diabetes. The likelihood of a BPH patient also having diabetes is elevated, and the progression and severity of LUTS in diabetic patients is more severe compared to non-diabetic BPH patients (Burke et al, 2006, Michel et al, 2000). Obesity, as measured by waist to hip ratio, is also strongly correlated with the incidence and severity of BPH (Kristal et al, 2007). Both diabetes and obesity result in complex, and in some cases, shared systemic changes. For example, both diabetes and obesity alter sex steroid hormone metabolism, and both may be considered to be “pro-inflammatory” conditions releasing chemokines that may well contribute to prostatic growth (Jerde and Bushman, 2009).

In addition, diabetic and obese patients see significant changes in metabolic pathways. In particular, alterations in the ability to utilize glucose in diabetic patients result in increases in insulin-like growth factor-1 (IGF-1) activity. Inflammation is a common observation in human BPH and it has been suggested that the risk of BPH progression and acute urinary retention is greater in men with prostatic inflammation (McConnell et al, 2003, McVary, 2007). Peroxisome proliferator receptor-activated gamma (PPAR γ) sits at a key balance point in the regulation of cellular metabolism, differentiation and inflammatory responses. PPAR γ signaling, which sits at the nexus of systemic metabolic disease and BPH/LUTS through its regulation of inflammation and insulin resistance, is proposed as a candidate for molecular manipulation in regard to BPH/LUTS.

【Round Table 2】

Hypogonadism and Voiding Dysfunction in Male

William J. Huang, MD, PhD,
Professor, Department of Urology, School of Medicine, National Yang-Ming University,
Taipei Veterans General Hospital, Taipei, Taiwan

Serum testosterone decreases gradually as a man ages. It could be resulted from dysfunctions of either central control or gonadal response. The direct effects of the diminished testosterone release are the impaired functions of its targets organs, including poor muscle strength, osteoporosis, anemia, poor libido/ erection, and abnormality of mood and cognitive functions. The most frequent concomitant symptom in hypogonadal males is lower urinary tract symptoms, especially the voiding dysfunction. Many clinical studies have documented the reverse correlation of serum testosterone levels and severity of voiding dysfunction. Replacement of testosterone is also suggestive to improve voiding dysfunction significantly. However, most of the studies were with small patient cohort, or not randomized in study design. Many of them only described the short-term effects. Prospective randomized clinical trials with more included subjects and with a longer follow-up are mandatory to define the role of testosterone replacement in treating voiding dysfunction in hypogonadal aging males. The pathophysiology of hypogonadism-related voiding dysfunction is still elusive. Some animal studies support that testosterone stabilizes the detrusor muscle and urothelium. Mechanisms underlying the effects involve the actions of nitric oxide synthase, phosphodiesterase type 5, Rho kinase, TGF-β and autonomic nerves. Further investigatory studies focusing on the interacting cytokines and molecules between androgens, nerves and smooth muscle will lead us to a more comprehensive understanding of the pathophysiology and a potential treatment strategy of hypogonadism-related voiding dysfunction in males.

【Round Table 2】

PDE-5 Inhibitors and BPH/LUTS

蔡德甫醫師
新光醫院泌尿科主任

Abstract

The effect of PDE5 inhibition on cGMP concentration in the corpus cavernosum is also observed in the smooth muscle of the prostate, the bladder and their vascular supply. The resulting vascular relaxation increases blood perfusion in the LUT which may be the mechanism by which symptoms of BPH are relieved. The increased vascular perfusion of LUT may be complemented by inhibition of bladder afferent nerve activity and increased smooth muscle relaxation of the prostate and bladder. However, the exact mechanism of action for PDE5-Is remains to be determined. Although 3 selective oral PDE5-Is have been licensed in Europe and USA, only Cialis (5 mg QD) has been licensed for the treatment of male LUTS. In Taiwan, Cialis once daily was the only licensed PDE5-I for BPH treatment in December 2012. Significant IPSS reduction has been demonstrated with Cialis 5 mg after a run-in period by 22–37% (4.7–6.6 IPSS points; IPSS points relative to placebo: 2.1–4.4). Cialis reduces LUTS (IPSS) significantly as early as 1 wk of treatment. Cialis was reported to have a significant increase in Qmax compared with placebo (+2.4 ml/s) for the first time in a RCT study. Cialis has no significant impact on PVR. PDE5-Is most frequently cause headache, back pain, dizziness, and dyspepsia (20). The most frequently adverse events of Cialis 5 mg QD (>2%) included headache (4.1%), back pain (2.4%), dyspepsia (2.4%) and nasopharygisitis (2.1%). Only Cialis should be used clinically for the treatment of male LUTS because it is the only PDE5-I which has been officially licensed for the indication. Younger men with lower BMI and more severe urinary symptoms profit the most from PDE5-I treatment. Long-term use of Cialis in patients with LUTS is limited to one trial, and therefore it is not possible to judge the efficacy and safety over one year at present. There is limited information at present about PDE5-I effect on suppressing prostate size and no information on slowing of disease progression.

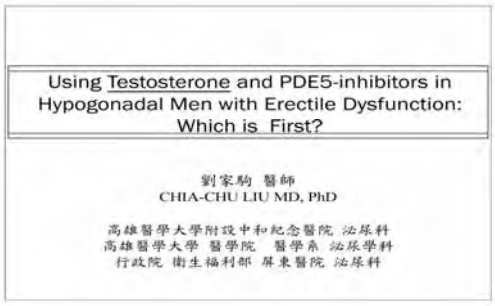
三月一日（星期六）
成大醫學院 第三講堂
【Clinical Debate】

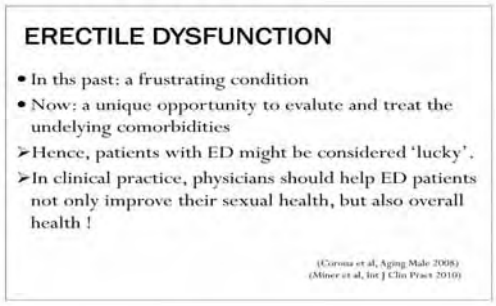
Using Testosterone and PDE5-inhibitors in Hypogonadal Men with Erectile Dysfunction: Which is First?			
時間	內容	主講人	座長
14:20-14:32	Using Testosterone and PDE5-inhibitors in Hypogonadal Men with Erectile Dysfunction: Which is First?	劉家駒醫師	黃世聰醫師
14:32-14:44	Using Testosterone and PDE5-inhibitors in Hypogonadal Men with Erectile Dysfunction: PDE5-inhibitors First	盧致誠醫師	
14:44-15:00	Discussion by Moderator		

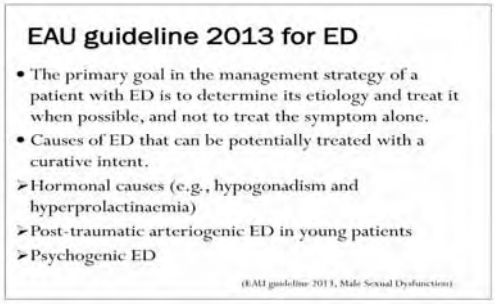
【Clinical Debate】

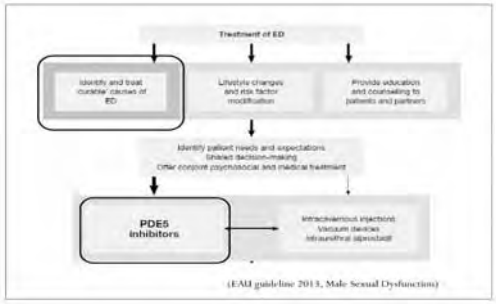
Using Testosterone and PDE5-inhibitors in Hypogonadal Men with Erectile Dysfunction: Which is First?

劉家駒 醫師
CHIA-CHU LIU MD, PhD
高雄醫學大學附設中和紀念醫院 泌尿科
高雄醫學大學 醫學院 醫學系 泌尿學科
行政院 衛生福利部 屏東醫院 泌尿科









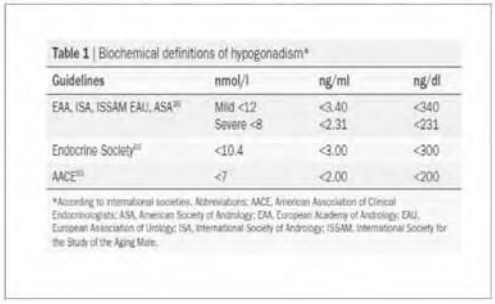


Table 1 | Biochemical definitions of hypogonadism*

Guidelines	nmol/l	ng/ml	ng/dl
EAA, ISA, ISSAM EAU, ASA[20]	Mild <12 Severe <8	<3.40 <2.31	<340 <231
Endocrine Society[21]	<10.4	<3.00	<300
AACE[22]	<7	<2.00	<200

*According to international societies. Abbreviations: AACE, American Association of Clinical Endocrinologists; ASA, American Society of Andrology; EAA, European Academy of Andrology; EAU, European Association of Urology; ISA, International Society of Andrology; ISSAM, International Society for the Study of the Aging Male.

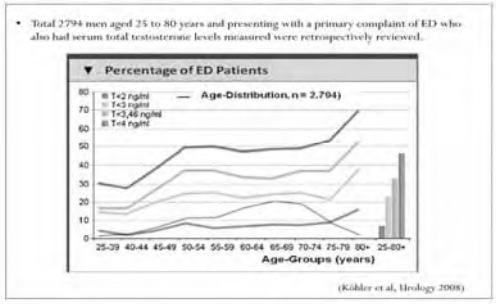


TABLE 1. Symptoms and signs suggestive of androgen deficiency in men

A. More specific symptoms and signs
- Incomplete or delayed sexual development, eunuchoidism
- Reduced sexual desire (libido) and activity
- Decreased spontaneous erections
- Breast discomfort, gynecomastia
- Loss of body (axillary and pubic) hair, reduced shaving
- Very small (especially <5 ml) or shrinking testes
- Inability to father children, low or zero sperm count
- Height loss, low trauma fracture, low bone mineral density
- Hot flushes, sweats

B. Other less specific symptoms and signs
- Decreased energy, motivation, initiative, and self-confidence
- Feeling sad or blue, depressed mood, dysthymia
- Poor concentration and memory
- Sleep disturbance, increased sleepiness
- Mild anemia (normochromic, normocytic, in the female range)
- Reduced muscle bulk and strength
- Increased body fat, body mass index
- Diminished physical or work performance

(Bhasin et al, J Clin Endocrinol Metab 2010;95: 2536-2559)

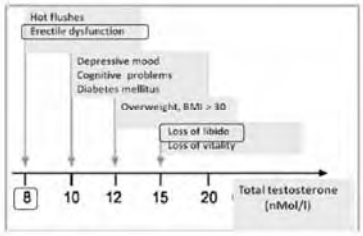


Figure 4 Threshold values for the manifestation of different clinical symptom (N = 434 [19]). BMI = body mass index

(Zitmann et al, J Clin Endocrinol Metab 2006)

The Relationships between Sex Hormones and Sexual Function in Middle-Aged and Older European Men

- the European Male Ageing Study: 2838 European men aged 40–79 yr with a sexual partner were included. Sex hormones were measured using gas chromatography-mass spectrometry.

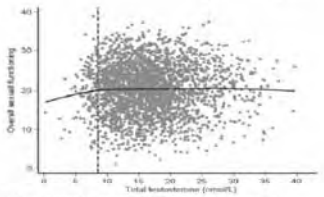
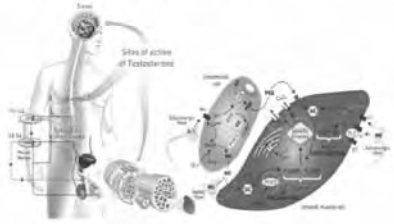


FIG. 2. Relationship between total T and Overall SF score with evidence of a threshold at 8 nmol/liter. LOWESS plot adjusted for age.

(O'Connor et al, J Clin Endocrinol Metab 2011)

Testosterone modulate erectile physiology in three levels : the central nervous system (CNS) nuclei, the spinalmotoneurons, and the genital tissues.



(Isidori et al, Eur Urol 2014)

Investigation, Treatment, and Monitoring of Late-Onset Hypogonadism in Males: ISA, ISSAM, EAU, EAA, and ASA Recommendations

- **TT> 340 ng/dL (12 nmol/L):** Not require TRT
- **TT< 230 ng/dL (8 nmol/L):** True hypogonadism
  Usually benefit from TRT
- **TT: 230-340 ng/dL: Grey zone**
  Need repeated check TT, and consider FT or Bioavailable T
  FT< 65 pg/ml: suggest TRT
  Threshold values of bioavailable T: not generally available

(Wang et al, Eur Urol 2009)

- A trial of TRT for 3 months can be considered after excluding other causes.

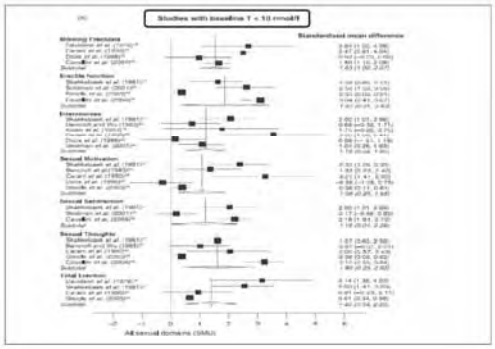
(Morales et al, Eur Urol 2014)
(Black et al, BJU Int 2014)

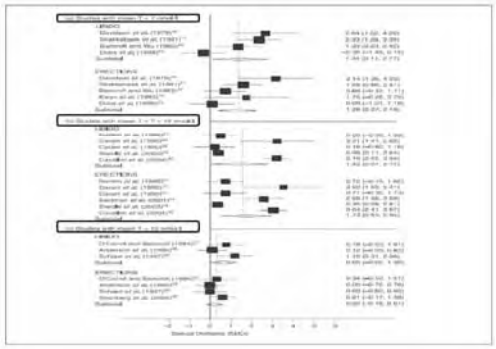
Effects of testosterone on sexual function in men: results of a meta-analysis

Andrea M. Isidori*, Elisa Giannetta*, Daniele Gianfrilli*, Emanuela A. Greco*, Vincenzo Bonifacio*, Antonio Aversa*, Aldo Isidori*, Andrea Fabbri† and Andrea Lenzi†

- A total of 17 randomized placebo-controlled trials were included. (n=656)
- 284 were randomized to T, 284 to placebo (P) and 88 treated in cross-over.
- Mean age: 57.5 years.
- Median study length: 3 months (range 1–36 months).

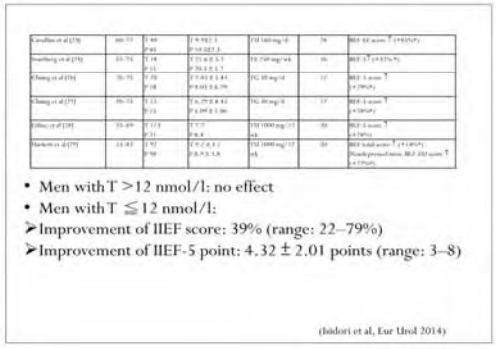
(Isidori et al, Clin Endocrinol 2005)





Randomized controlled trials investigating the effects on erectile function

A total of 20 RCTs are included (Isidori et al, Eur Urol 2014)



- Men with T >12 nmol/l: no effect
- Men with T ≤12 nmol/l:
  - ➢Improvement of IIEF score: 39% (range: 22–79%)
  - ➢Improvement of IIEF-5 point: 4.32 ± 2.01 points (range: 3–8)

(Isidori et al, Eur Urol 2014)

Why Testosterone Therapy is the first Treatment Option in Hypogonadal men with ED?

Etiologic therapies are better than symptomatic therapies

- **Testosterone therapy:** a typical etiologic therapy, directly addressing the cause of the disease.
- **PDE5is:** a symptomatic treatment
  - ➢ PDE5is may effectively treat erections, but they cannot improve low libido, reduced ejaculatory volume, and other sexual symptoms associated with hypogonadism. Therefore, sex life may not be fully restored!!

(Jannini et al, J Sex Med 2013)
(EAU guideline 2013, Male Sexual Dysfunction)
(Isidori et al, Eur Urol 2014)

Normal testosterone levels are needed for PDE5is to be fully effective

- Several reports demonstrate that the enzyme PDE5 is under testosterone control.

(Jannini et al, J Sex Med 2013)
(Isidori et al, Eur Urol 2014)

- Testosterone therapy in hypogonadal men can convert nonresponders to PDE5i to responders (Level 1b evidence).

(Porst et al, J Sex Med 2011)
(Corona et al, Nat Rev Urol 2010)

➢ Why use a PDE5i before testosterone levels have been normalized?

It is good clinical practice to proceed from mono therapy to multiple therapy

- Many patients may recover with testosterone alone, without the need for PDE5i.

(Isidori et al, Eur Urol 2014)
(Isidori et al, Clin Endocrinol 2005)

- Use testosterone alone initially, adding a PDE5i only in patients whose hypogonadism is resolved but whose ED still remains.

(Jannini et al, J Sex Med 2013)

Testosterone therapy can also improve other risk factors of ED

- Can improve individual components of MetS.

(Corona et al, J Sex Med 2011)
(Saad et al, Eur J Endocrinol 2011)

- Can improve glycemic control, insulin levels and sensitivity and inflammatory factors.

(Heufelder et al, J Androl 2009)
(Saad et al, Eur J Endocrinol 2011)

- Can increase circulating endothelial progenitor cell numbers.

(Caretta et al, J Clin Endocrinol Metab 2006)
(Liao et al, Andrology 2013)

Overall health is more important than sexual health

➢ Sexual dysfunction is one of the main symptoms causing hypogonadal men to seek medical help.

(Wu et al, N Engl J Med 2010)

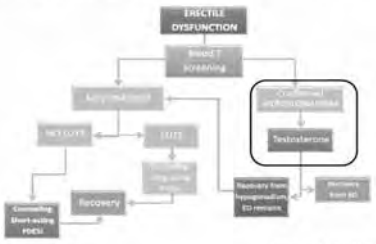
➢ Once treated with PDE5-Is, they may no longer be interested in correcting their underlying testosterone deficiency.

➢ It will leave those hypogonadal men untreated and exposed to a greater risk of osteoporosis, diabetes, dyslipidemia, obesity, and CV morbidity and mortality.

(Aversa et al, J Sex Med 2010)
(Araujo et al, J Clin Endocrinol Metab 2011)
(Isidori et al, Eur Urol 2014)

Which Is First? The Controversial Issue of Precedence in the Treatment of Male Sexual Dysfunctions

Emmanuele A. Jannini, MD,* Andrea M. Isidori, MD, PhD,† Antonio Aversa, MD, PhD,‡ Andrea Lenzi, MD,† and Stanley E. Althof, PhD§



(Jannini et al, J Sex Med 2013)

CONCLUSION

- Testosterone therapy should be the first treatment choice in hypogonadal men with ED, because it is a etiologic therapy, directly addressing the cause of the disease.
- Testosterone therapy in hypogonadal men can not only improve their sexual symptoms but also overall health.
- Consider adding a PDE5i in hypogonadal men with ED, only if hypogonadism is resolved but ED is still remained.

【Clinical Debate】

Using Testosterone and PDE5-inhibitors in Hypogonadal Men with Erectile Dysfunction: PDE5-inhibitors First

Chih-Cheng Lu
Division of Urology, Department of Surgery, Chi Mei Medical Center, Liouying, Tainan

Abstract

PDE5 hydrolyses cGMP in the cavernosum. Inhibition of PDE5 will cause relaxation of cavernosal smooth muscle with increased arterial blood flow, leading to penile erection. Potent oral PDE5-Is (PDE5 Inhibitors) have been approved by the AUA and the EMA (European Medicines Agency) as the first-line treatment of ED (erectile dysfunction). According to practice guidelines, failure of PDE5-Is therapy should be evaluated to determine whether the trial of PDE5-I was adequate before shifting to other therapies.

TRT (testosterone replacement therapy) should only be used after other endocrinological causes for testicular failure have been excluded. TRT is controversial in men with a history of prostate carcinoma. Before initiating TRT, digital rectal examination, serum PSA test, hematocrit, liver function tests and lipid profile are suggested to be performed. Patients given TRT should be monitored for clinical response, elevated hematocrit and development of hepatic or prostatic disease. TRT is contraindicated in patients with untreated prostate cancer or unstable cardiac disease.

Besides, TRT was associated with increased risk of adverse outcomes (mortality, myocardial infarction, and stroke) among men of low serum testosterone reported in a recent issue of JAMA. These findings may inform the discussion about the potential risks of TRT and keep TRT away from the first-line therapy in ED.

References:

1. Association of testosterone therapy with mortality, myocardial infarction, and stroke in men with low testosterone levels. JAMA 2013; p.1829-36.
2. White Paper: The laboratory diagnosis of testosterone deficiency. AUA 2013.
3. Mechanisms of action of testosterone —unraveling a Gordian knot. NEJM 2013; p.1058-59.
4. Guidelines on male sexual dysfunction: Erectile dysfunction and premature ejaculation. EAU 2013.

三月一日（星期六）
成大醫學院 第三講堂
【特別專題演講】

座長：林永明醫師

時間	講題／主講人
15:20-16:00	如何以流行病學進行男性學研究：以性傳染病為例 陳國東教授 台南市立醫院職業醫學科主治醫師 國立成功大學醫學院公共衛生研究所兼任教授

【特別專題演講】

如何以流行病學方法進行男性學研究：以性傳染病為例

陳國東 教授
台南市立醫院職業醫學科主治醫師
國立成功大學醫學院公共衛生研究所兼任教授

流行病學是探討某一特定人口群的健康有關的分布及決定因子，並將研究結果應用於控制健康問題。近年來由於知識、分析、工具及統計方法的演進，流行病學已由原本的提供許多疾病與健康問題的基本知識，進展到下列重要核心問題：(1) 病因的探討 (2) 疾病與危險因子的描述 (3) 評估健康計畫、法律及政治的影響 (4) 計量健康照顧的模式及成果 (5) 將流行病學的發現提供給醫療專業人員與一般大眾。男性學是人類健康問題重要的一環，本文將以性傳染病為例，討論如何將流行病學方法應用在男性學的研究。

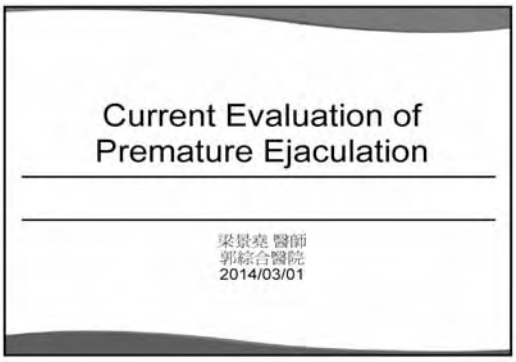
三月一日（星期六）
成大醫學院 第三講堂
【Evening Symposium】

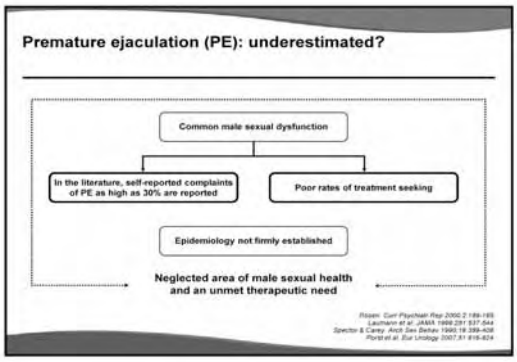
Premature Ejaculation			
時間	內容	主講人	座長
16:00-16:20	Current Evaluation of Premature Ejaculation	梁景堯醫師	黃志賢醫師
16:20-16:40	Dapoxetine as Treatment for Premature Ejaculation	張進寶醫師	
16:40-17:00	Can PDE5 Inhibitors be Used in Premature Ejaculation	許毓昭醫師	
17:00-17:20	The Priligy Korean Experience – A Deep Dive into Real Clinical Cases	Professor Sung Won LEE	

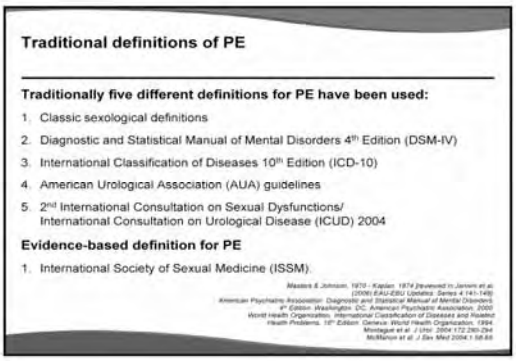
【Evening Symposium】

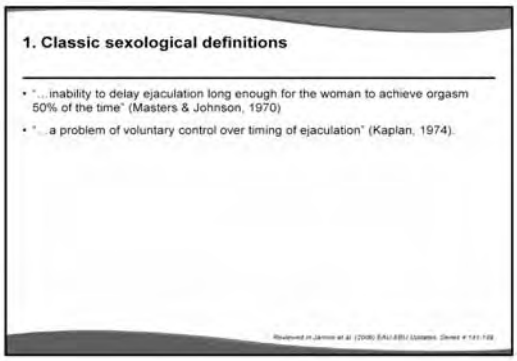
Current Evaluation of Premature Ejaculation

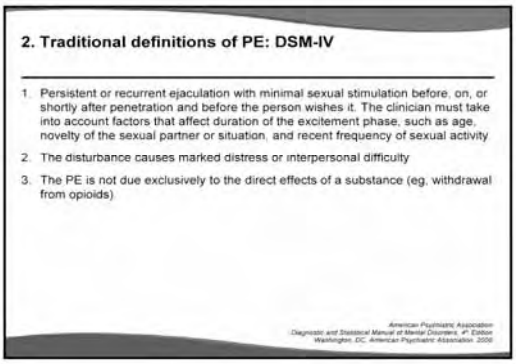
梁景堯醫師
郭綜合醫院

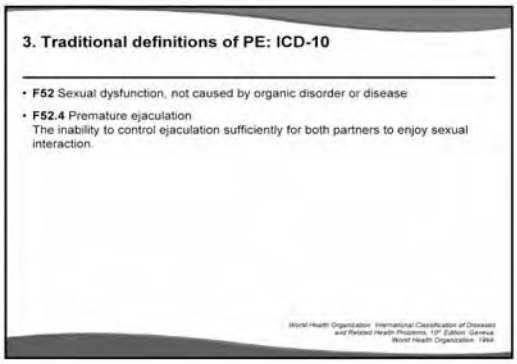


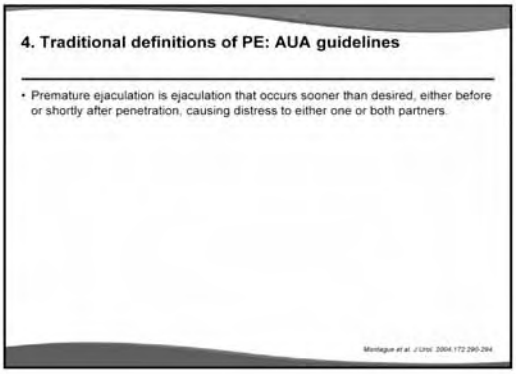


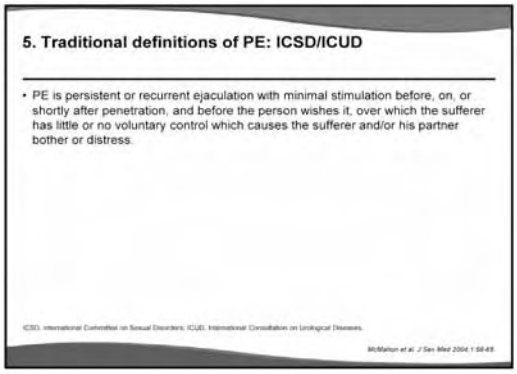


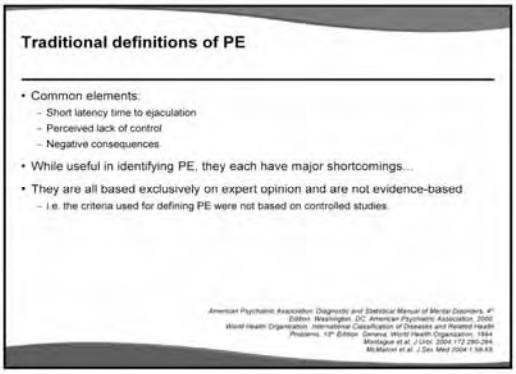


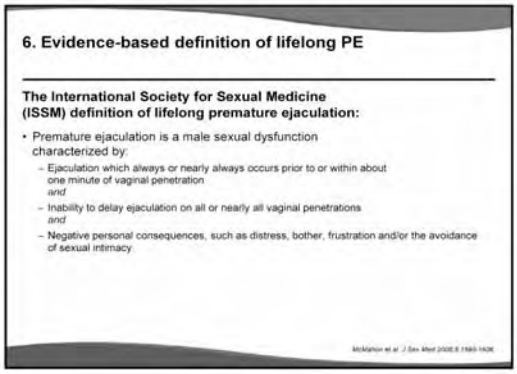


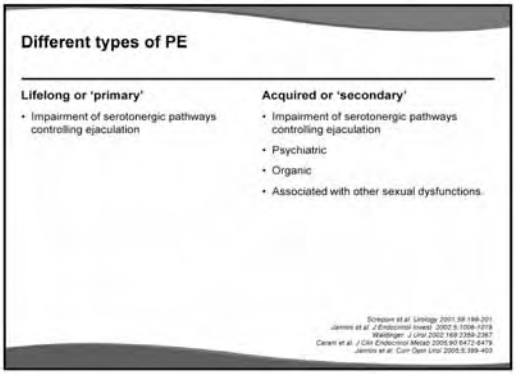


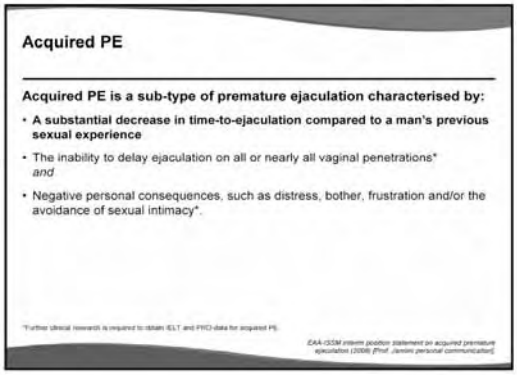

4. Traditional definitions of PE: AUA guidelines
• Premature ejaculation is ejaculation that occurs sooner than desired, either before or shortly after penetration, causing distress to either one or both partners.
Montague et al. J Urol. 2004;172:290-294.


5. Traditional definitions of PE: ICSD/ICUD
• PE is persistent or recurrent ejaculation with minimal stimulation before, on, or shortly after penetration, and before the person wishes it, over which the sufferer has little or no voluntary control which causes the sufferer and/or his partner bother or distress.
ICSD, International Committee on Sexual Disorders; ICUD, International Consultation on Urological Diseases.
McMahon et al. J Sex Med 2004;1:58-65.


Traditional definitions of PE
• Common elements:
– Short latency time to ejaculation
– Perceived lack of control
– Negative consequences
• While useful in identifying PE, they each have major shortcomings...
• They are all based exclusively on expert opinion and are not evidence-based
– i.e. the criteria used for defining PE were not based on controlled studies.
American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th Edition. Washington, DC: American Psychiatric Association; 2000.
World Health Organization. International Classification of Diseases and Related Health Problems, 10th Edition. Geneva: World Health Organization; 1994.
Montague et al. J Urol. 2004;172:290-294.
McMahon et al. J Sex Med 2004;1:58-65.


6. Evidence-based definition of lifelong PE
The International Society for Sexual Medicine (ISSM) definition of lifelong premature ejaculation:
• Premature ejaculation is a male sexual dysfunction characterized by:
– Ejaculation which always or nearly always occurs prior to or within about one minute of vaginal penetration
and
– Inability to delay ejaculation on all or nearly all vaginal penetrations
and
– Negative personal consequences, such as distress, bother, frustration and/or the avoidance of sexual intimacy
McMahon et al. J Sex Med 2008;5:1590-1606.


Different types of PE
Lifelong or 'primary'
• Impairment of serotonergic pathways controlling ejaculation
Acquired or 'secondary'
• Impairment of serotonergic pathways controlling ejaculation
• Psychiatric
• Organic
• Associated with other sexual dysfunctions.
Screpnik et al. Urology 2001;58:198-201.
Jannini et al. J Endocrinol Invest 2002;5:1008-1019.
Waldinger. J Urol 2002;168:2359-2367.
Cerani et al. J Clin Endocrinol Metab 2005;90:6472-6479.
Jannini et al. Curr Opin Urol 2005;5:369-403.


Acquired PE
Acquired PE is a sub-type of premature ejaculation characterised by:
• A substantial decrease in time-to-ejaculation compared to a man's previous sexual experience
• The inability to delay ejaculation on all or nearly all vaginal penetrations*
and
• Negative personal consequences, such as distress, bother, frustration and/or the avoidance of sexual intimacy*.
*Further clinical research is required to obtain IELT and PFD data for acquired PE.
EAA-ISSM interim position statement on acquired premature ejaculation (2008) [Prof. Jannini personal communication]

Proposed diagnostic assessment

- Establish presenting complaint
- Degree of patient/partner distress
- Perceived degree of ejaculatory control
- (Estimated) intravaginal ejaculatory latency time (IELT) and/or perceived degree of ejaculatory control
- Onset and duration of PE
- Is PE a distinct condition (eg, associated with erectile dysfunction)?

McMahon et al. 2nd International Consultation on Sexual Dysfunctions, Paris, 2004.
Lue et al. J Sex Med 2004;(1):6-23.

Measurement of intravaginal ejaculation latency time (IELT)

Intravaginal ejaculation latency time (IELT) is an objective measure of time to ejaculation used in clinical trials

- IELT is typically measured by the partner using a stopwatch
- IELT is defined as the time from the start of vaginal penetration to the start of intravaginal ejaculation
  - An ejaculation before intromission has an IELT of zero
  - Each ejaculation after vaginal intromission is measured in seconds or minutes
- Cut-off points for an IELT defining PE have varied widely from 1-7 minutes.

Waldinger et al. Am J Psych 1994;151:1377-1379.
Waldinger Int J Impot Res 2003;15:309-313.

Patient-reported outcomes in PE

- Patient-reported outcomes (PROs) assess important subjective components of PE:
  - Control over ejaculation
  - Satisfaction with intercourse
  - Interpersonal distress or difficulty
  - Partners' perception
- PROs evaluate both observable and non-observable aspects of the condition that are included in definitions
- PROs are typically evaluated in clinical trials using self-completion questionnaires such as the Premature Ejaculation Profile (PEP).

Patrick et al. JSM 2007;4:780-794
Giuliano et al. Eur Urology 2008;53:1048-1057

Patient-reported outcome (PRO) measures

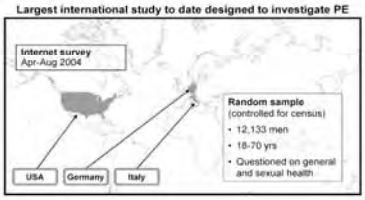
The Premature Ejaculation Profile (PEP)

Measure	Question	5 possible responses
Control over ejaculation	Over the past month, was your control over ejaculation during sexual intercourse…	0 = very poor ↓ 4 = very good
Personal distress related to ejaculation	Over the past month, how distressed were you by how fast you ejaculated during sexual intercourse?	0 = extremely ↓ 4 = not at all
Satisfaction with sexual intercourse	Over the past month, was your satisfaction with sexual intercourse…	0 = very poor ↓ 4 = very good
Interpersonal difficulty related to ejaculation	Over the past month, to what extent did how fast you ejaculated during sexual intercourse cause difficulty in your sexual relationship with your partner?	0 = extremely ↓ 4 = not at all

Patrick et al. JSM 2007;4:780-794
Giuliano et al. Eur Urology 2008;53:1048-1057

Premature Ejaculation Perceptions and Attitudes (PEPA) study background

Largest international study to date designed to investigate PE



PEPA, Premature Ejaculation Perceptions and Attitudes

Porst et al. Eur Urol 2007;51:816-824

PEPA Study: definition of PE

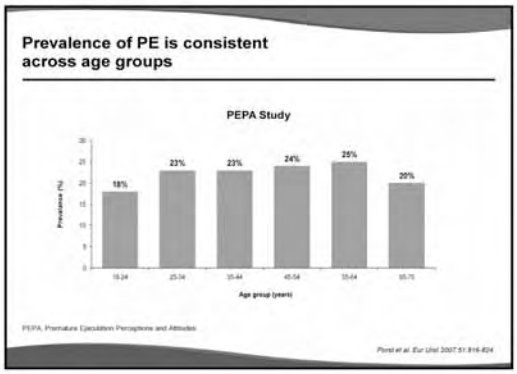
Analysis designed to conform as closely as possible to DSM-IV-TR criteria: responses in blue defined as PE

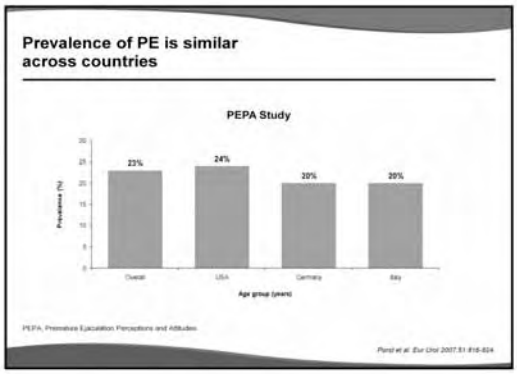
Do you feel that your control over ejaculation during sexual intercourse is…"
"poor"
"fair"
"good"
"very good"
"excellent"

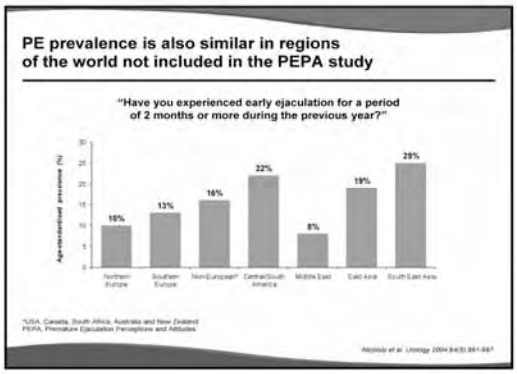
Which of these four statements best describes how your typical length of time from penetration to climax has affected your relationship…"
"a problem for me, but is not for my partner"
"not a problem for me, but it is for my partner"
"a problem for both me and my partner"
"not a problem for me or my partner"

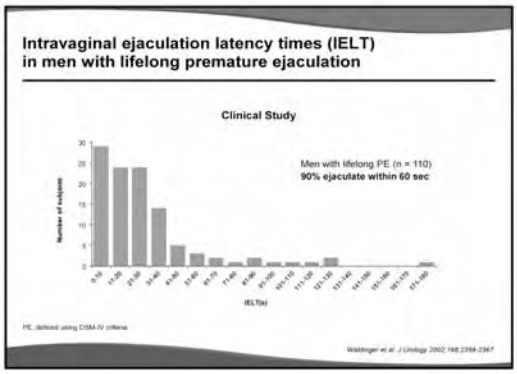
PEPA, Premature Ejaculation Perceptions and Attitudes

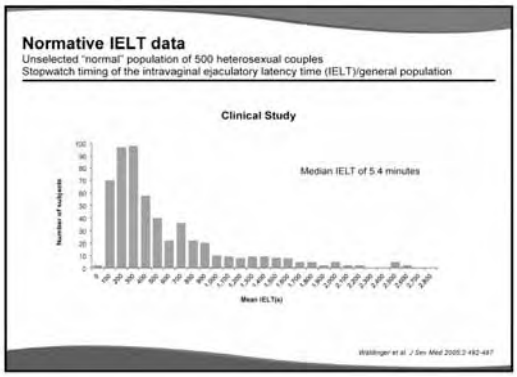
Porst et al. Eur Urol 2007;51:816-824

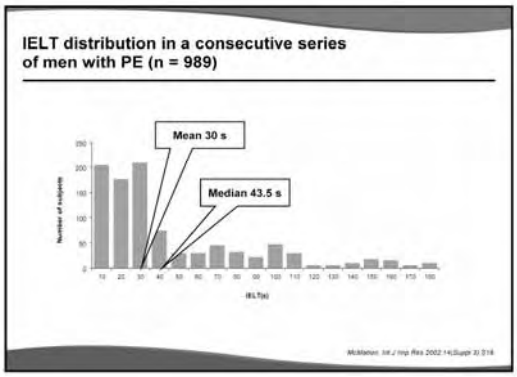

Prevalence of PE is consistent across age groups
PEPA Study
18%
23%
23%
24%
25%
20%
Prevalence (%)
Age group (years)
PEPA, Premature Ejaculation Perceptions and Attitudes


Prevalence of PE is similar across countries
PEPA Study
23%
24%
20%
20%
Prevalence (%)
Age group (years)
PEPA, Premature Ejaculation Perceptions and Attitudes


PE prevalence is also similar in regions of the world not included in the PEPA study
"Have you experienced early ejaculation for a period of 2 months or more during the previous year?"
10%
13%
16%
22%
8%
19%
25%
Age-standardized prevalence (%)
*USA, Canada, South Africa, Australia and New Zealand
PEPA, Premature Ejaculation Perceptions and Attitudes

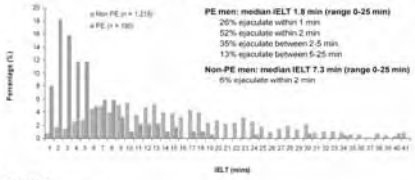

Intravaginal ejaculation latency times (IELT) in men with lifelong premature ejaculation
Clinical Study
Men with lifelong PE (n = 110)
90% ejaculate within 60 sec
Number of subjects
IELT(s)
PE, defined using DSM-IV criteria


Normative IELT data
Unselected "normal" population of 500 heterosexual couples
Stopwatch timing of the intravaginal ejaculatory latency time (IELT)/general population
Clinical Study
Median IELT of 5.4 minutes
Number of subjects
Mean IELT(s)


IELT distribution in a consecutive series of men with PE (n = 989)
Mean 30 s
Median 43.5 s
Number of subjects
IELT(s)

US observational study of men with PE, diagnosed according to the DSM-IV-TR criteria*

IELTs in subjects with and without PE overlap, especially in the 1-4 minutes time-frame



PE men: median IELT 1.8 min (range 0-25 min)
26% ejaculate within 1 min
52% ejaculate within 2 min
35% ejaculate between 2-5 min
13% ejaculate between 5-25 min

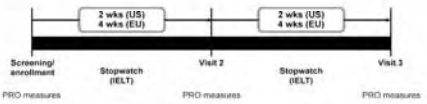
Non-PE men: median IELT 7.3 min (range 0-25 min)
6% ejaculate within 2 min

Study code: C-004-2004
*IELT was not a criterion for PE diagnosis.

Patrick et al. J Sex Med 2006;3:358-367.

EU & US observational studies of men with PE and their female partners

- Multi-center, observational (no treatment administered)
- Objective: To evaluate validity & reliability of patient reported measures and to establish non-PE "norms" for defining clinical relevance
- Clinicians used DSM-IV criteria to classify men as PE or non-PE
  - US study: 1,587 men aged 18-85 years (207 PE; 1,380 non-PE)
  - EU study: 1,115 men aged 18-85 years (201 PE; 914 non-PE)



Study codes: C-004-2004 (US).

Kaufman et al. BJU International 2009;103:651-658.
Giuliano et al. Eur Urology 2008;53:1048-1057.
Patrick et al. J Sex Med 2006;3:358-367.

EU & US observational studies comparison

Screening visit

Demographics/Measured IELT	EU Study		US Study	
	PE	Non-PE	PE	Non-PE
Number of subjects enrolled	**201**	**914**	**207**	**1,380**
Mean age (years)	**36.0**	**34.5**	**36.1**	**35.3**
Circumcision (% yes)	**10**	**11**	**83.0**	**84.5**
Education (% with college degree)	**40**	**45**	**38.8**	**49.8**
Living situation (% living with spouse or partner)	**79.0**	**73.0**	**86.0**	**85.6**
Monthly frequency of intercourse in past 6 mo. (median)	**10.0**	**10.0**	**8.0**	**10.0**
Measured IELT				
Mean (minutes)	3.3	10.0	3.0	9.15
Median (minutes)	2.0	8.8	1.8	7.3
Range	0-26	0-44	0-41	0-53

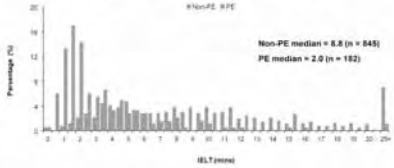
- Sample: EU - 1,115 men and their partners over 8 weeks
  US - 1,587 men and their partners over 4 weeks
- Clinicians used DSM-IV criteria to classify men as PE or non-PE.

Study codes: C-004-2004 (US).

Kaufman et al. BJU International 2009;103:651-658.
Giuliano et al. Eur Urology 2008;53:1048-1057.
Patrick et al. J Sex Med 2006;3:358-367.

EU observational study of men with and without PE Intravaginal ejaculatory latency time (IELT)

IELTs in subjects with and without PE overlap, especially in the 1-4 minutes time-frame



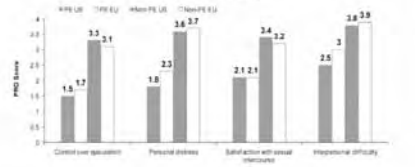
Non-PE median = 8.8 (n = 845)
PE median = 2.0 (n = 182)

Subjects with an average IELT values ≥25 minutes were combined into a single category.

Giuliano et al. Eur Urology 2008;53:1048-1057.

Comparison of PRO scores for EU and US partners of PE and partners of non-PE men

Burden of PE: worse scores on all PRO measures for men with PE

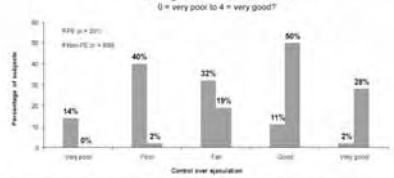


*Scores: second step: higher scores indicate better functioning for all measures.

Patrick et al. J Sex Med 2006;3:358-367.
Giuliano et al. Eur Urology 2008;53:1048-1057.

Subject reported control over ejaculation* by PE diagnosis (EU observational study)

***Over the past month, was your control over ejaculation during sexual intercourse…**
0 = very poor to 4 = very good?



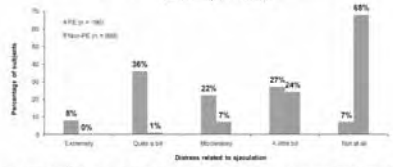
- Ratings of 'poor' or 'very poor' control were noted in only 2.6% of non-PE men.

Study code: R090769-PRE-3004.

Giuliano et al. (2008) Poster presented at EAU.

Subject distress related to ejaculation* by PE diagnosis (EU observational study)

*Over the past month, how distressed were you by how fast you ejaculated during sexual intercourse?
0 = extremely to 4 = not at all



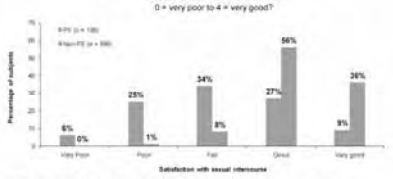
- Ratings of 'moderately', 'quite a bit' or 'extremely distressed' were noted in only 8% of non-PE men.

Study code: R066769-PRE-3004

Giuliano et al. (2006) Poster presented at EAU.

Subject satisfaction with sexual intercourse* by PE diagnosis (EU observational study)

*Over the past month, was your satisfaction with sexual intercourse...
0 = very poor to 4 = very good?



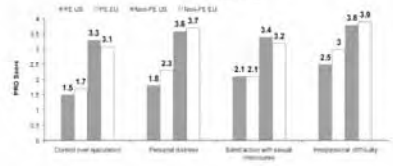
- Ratings of 'fair', 'poor' or 'very poor' satisfaction were noted in only 8% of non-PE men.

Study code: R066769-PRE-3004. *Scores: second visit. Higher scores indicate better functioning for all measures.

Giuliano et al. (2006) Poster presented at EAU.

Comparison of PRO scores for EU and US partners of PE and partners of non-PE men

Burden of PE: worse scores on all PRO measures for men with PE



Study codes: R066769-PRE-3004 (EU); C-004-3104 (US)
*Scores: second visit. Higher scores indicate better functioning for all measures.

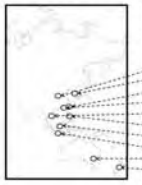
Patrick et al. J Sex Med. 2009;6:358-367
Giuliano et al. Eur Urology 2008;53:1048-1057

APAC PEPA Background

Largest study to date designed to investigate prevalence of PE and men's attitude toward PE in Asia Pacific Region

Random samples of

- 4,997 men
- 18-65 yrs of age
- A 48-question survey that includes 5 PEDT-based questions for investigating prevalence of PE and 10 IPE-based questions assess men's attitudes toward PE
- Computer-based, online or in person interviewing methodologies were adapted for the survey.



The survey was conducted March - April 2009 in total 10 locations in the APAC region that include

China
Korea
Taiwan
Hong Kong
Thailand
Philippines
Malaysia
Indonesia
Australia
New Zealand

McMahon et al. J Sex Med. 2012;9:454-465.

APAC PEPA Study
Definition of PE by PE Diagnostic Tool (PEDT)

All respondents were asked 5 questions

- **How difficult is it for you to delay ejaculation?**
- **Do you ejaculate before you want to?**
- **Do you ejaculate with very little stimulation?**
- **Do you feel frustrated because of ejaculating before you want to?**
- **How concerned are you that your time to ejaculation leaves your partner sexually unfulfilled?**

Respondents were asked to score each question from 0 – 4
0 = not at all / never or almost never
4 = extremely / always or almost always

A PEDT score is obtained by adding the numbers for the 5 questions for each respondent

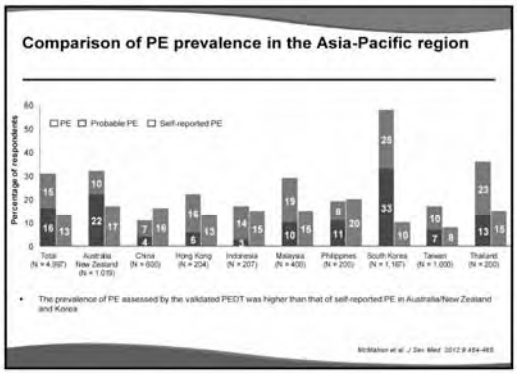
PEDT score ≥11:	**With PE**
PEDT score = 9 or 10:	**Probable PE**
PEDT score ≤8:	**No PE**

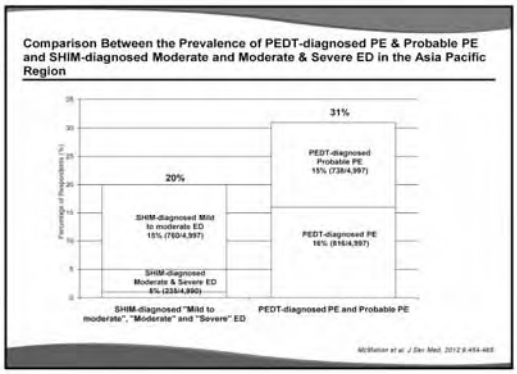
McMahon et al. J Sex Med. 2012;9:454-465.

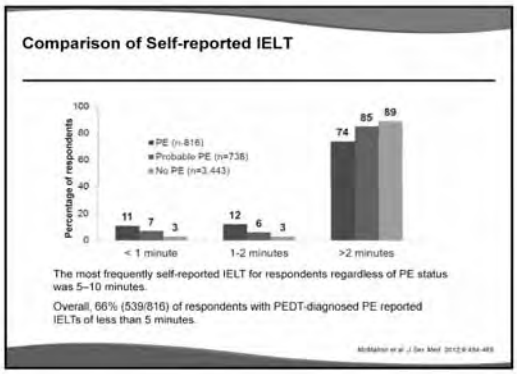
Sexual Health Inventory for Men (SHIM), or International Index of Erectile Function (IIEF-5)

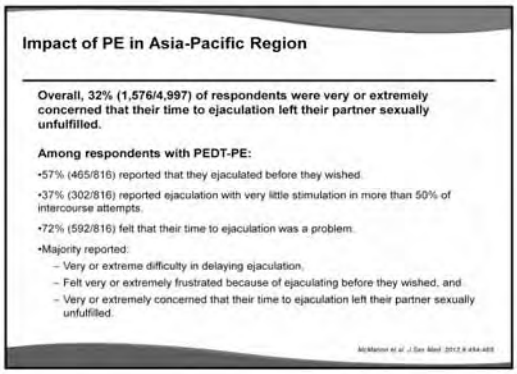
How do you rate your confidence that you could get and keep an erection?		1	2	3	4	5
When you had erections with sexual stimulation, how often were your erections hard enough for penetration (entering your partner)?	0	1	2	3	4	5
During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner?	0	1	2	3	4	5
During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?	0	1	2	3	4	5
When you attempted sexual intercourse, how often was it satisfactory for you?	0	1	2	3	4	5

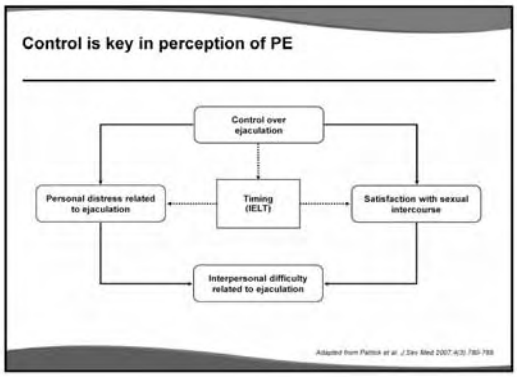
1-7 Severe ED
12-16 Mild to Moderate ED
8-11 Moderate ED
17-21 Mild ED


Comparison of PE prevalence in the Asia-Pacific region
PE
Probable PE
Self-reported PE
Percentage of respondents
Total (N = 4,997)
Australia/ New Zealand (N = 1,019)
China (N = 600)
Hong Kong (N = 204)
Indonesia (N = 207)
Malaysia (N = 400)
Philippines (N = 200)
South Korea (N = 1,167)
Taiwan (N = 1,000)
Thailand (N = 200)
The prevalence of PE assessed by the validated PEDT was higher than that of self-reported PE in Australia/New Zealand and Korea


Comparison Between the Prevalence of PEDT-diagnosed PE & Probable PE and SHIM-diagnosed Moderate and Moderate & Severe ED in the Asia Pacific Region
31%
PEDT-diagnosed Probable PE 15% (738/4,997)
20%
SHIM-diagnosed Mild to moderate ED 15% (760/4,997)
PEDT-diagnosed PE 16% (816/4,997)
SHIM-diagnosed Moderate & Severe ED 5% (233/4,990)
SHIM-diagnosed "Mild to moderate", "Moderate" and "Severe" ED
PEDT-diagnosed PE and Probable PE


Comparison of Self-reported IELT
Percentage of respondents
PE (n=816)
Probable PE (n=738)
No PE (n=3,443)
11
7
3
12
6
3
74
85
89
< 1 minute
1-2 minutes
>2 minutes
The most frequently self-reported IELT for respondents regardless of PE status was 5–10 minutes.
Overall, 66% (539/816) of respondents with PEDT-diagnosed PE reported IELTs of less than 5 minutes.


Impact of PE in Asia-Pacific Region
Overall, 32% (1,576/4,997) of respondents were very or extremely concerned that their time to ejaculation left their partner sexually unfulfilled.
Among respondents with PEDT-PE:
•57% (465/816) reported that they ejaculated before they wished.
•37% (302/816) reported ejaculation with very little stimulation in more than 50% of intercourse attempts.
•72% (592/816) felt that their time to ejaculation was a problem.
•Majority reported:
– Very or extreme difficulty in delaying ejaculation,
– Felt very or extremely frustrated because of ejaculating before they wished, and
– Very or extremely concerned that their time to ejaculation left their partner sexually unfulfilled.

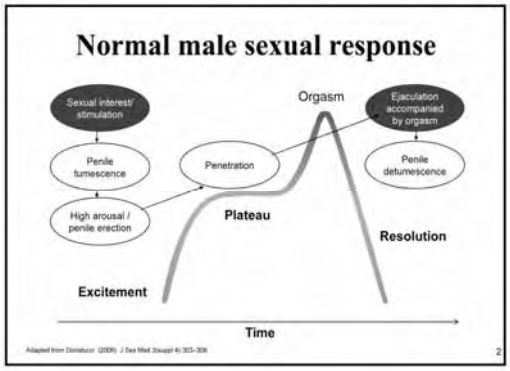

Control is key in perception of PE
Control over ejaculation
Personal distress related to ejaculation
Timing (IELT)
Satisfaction with sexual intercourse
Interpersonal difficulty related to ejaculation

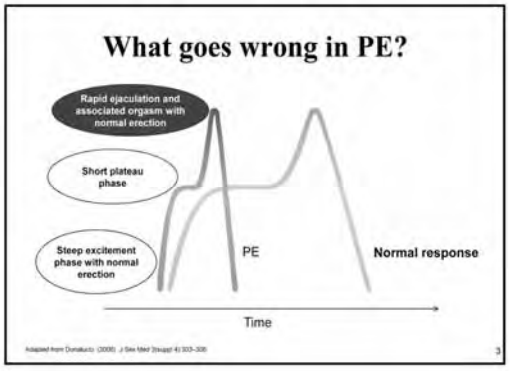

Thank you!!

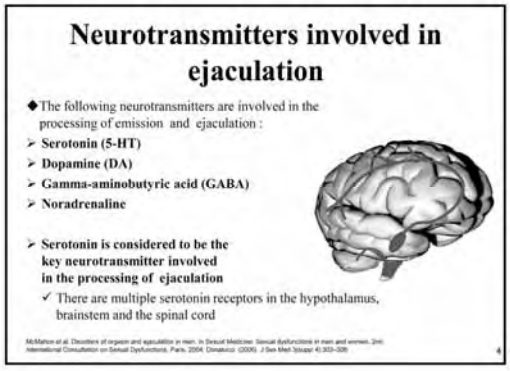
【Evening Symposium】

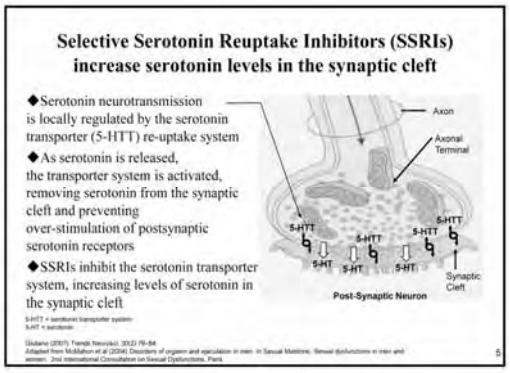
Dapoxetine as Treatment for Premature Ejaculation

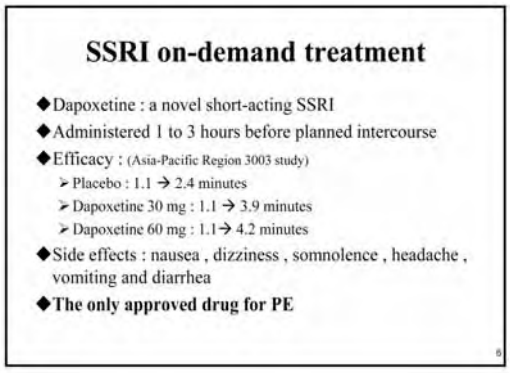
張進寶醫師
彰化基督教醫院 泌尿外科



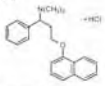








Introduction to Dapoxetine

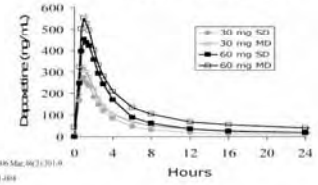


- One kind of SSRI's Drug .
- Formulated and developed for the treatment of premature ejaculation (PE)
- Oral tablet
- Unique pharmacokinetic profile
- Rapid onset, and elimination - suitable for PRN dosing, no need for loading dose
- Safety and effectiveness for the treatment of PE evaluated in a large clinical program

7

Dapoxetine Plasma Profile

- Rapidly absorbed - T_{max} ~ 1.3 hours
- Rapidly eliminated
  - Initial $T_{1/2}$=1.5 hours
  - Terminal $T_{1/2}$=19 hours
  - Plasma concentrations at 24 hours less than 5% of peak



J Clin Pharmacol. 2006 Mar;46(3):301-9
Study Report C-2501-004

8

Rapid absorption of dapoxetine may enhance clinical utility

- Antidepressant SSRIs generally take 1–2 weeks of daily dosing before they are effective against the symptoms of PE
  - SSRI-increased serotonin levels activate serotonin autoreceptors (5-HT_{1A}), countering the blockade of serotonin transporters by the SSRI, and reducing serotonin levels again
  - After 1–2 weeks of chronic dosing, the autoreceptors are downregulated and serotonin levels rise again
- The rapid absorption of dapoxetine might lead to an abrupt increase in serotonin levels that overwhelms the compensatory capacity of the 5-HT_{1A} autoreceptors
- This may explain the ability of dapoxetine to improve PE symptoms with on-demand dosing

Giuliani & Clement (2006) Eur Urol 50(3):444-48
Giuliani (2007) Trends Neurosci 30(2):79-84

9

Metabolism and elimination of dapoxetine

- Dapoxetine is metabolised in the liver by multiple isozymes, reducing risk of drug-drug interactions
- Dapoxetine is rapidly and extensively metabolised to multiple metabolites
- Dapoxetine-N-oxide is the main metabolite
- Dapoxetine metabolites have little clinical activity when administered at therapeutic doses

Dapoxetine is eliminated as metabolites primarily in the urine.

Modi et al. (2006) J Clin Pharmacol. 46:301-309

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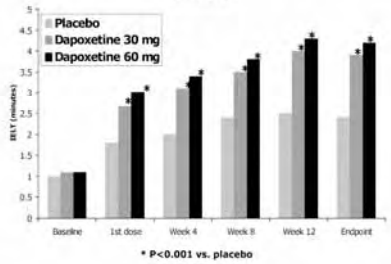
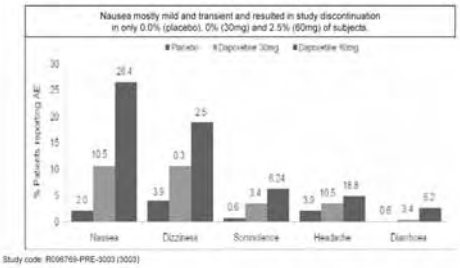
Dapoxetine Effect on IELT Over Time



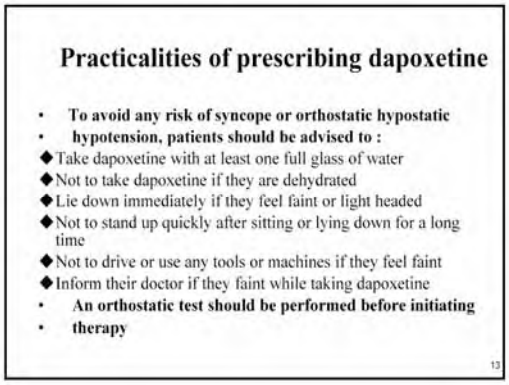
11

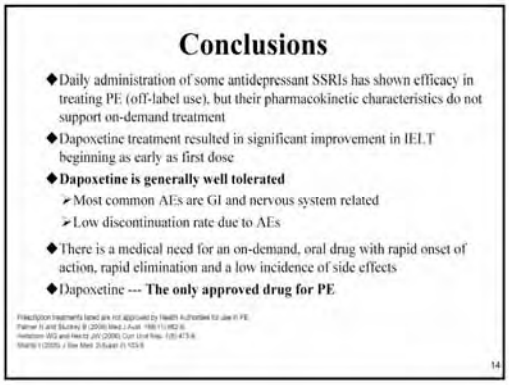
Frequently reported adverse events (12 weeks)



Study code: R096769-PRE-3003 (3003)
Park et al. (2007) Presented at APSSM

12


Practicalities of prescribing dapoxetine
• To avoid any risk of syncope or orthostatic hypostatic
• hypotension, patients should be advised to :
◆Take dapoxetine with at least one full glass of water
◆Not to take dapoxetine if they are dehydrated
◆Lie down immediately if they feel faint or light headed
◆Not to stand up quickly after sitting or lying down for a long time
◆Not to drive or use any tools or machines if they feel faint
◆Inform their doctor if they faint while taking dapoxetine
• An orthostatic test should be performed before initiating
• therapy
13


Conclusions
◆Daily administration of some antidepressant SSRIs has shown efficacy in treating PE (off-label use), but their pharmacokinetic characteristics do not support on-demand treatment
◆Dapoxetine treatment resulted in significant improvement in IELT beginning as early as first dose
◆Dapoxetine is generally well tolerated
➢Most common AEs are GI and nervous system related
➢Low discontinuation rate due to AEs
◆There is a medical need for an on-demand, oral drug with rapid onset of action, rapid elimination and a low incidence of side effects
◆Dapoxetine --- The only approved drug for PE
14

【Evening Symposium】

Can PDE5 Inhibitors be Used in Premature Ejaculation

許毓昭醫師
林口長庚醫院泌尿科

According to the AUA guideline for medical treatment of premature ejaculation, the options include serotonin reuptake inhibitors both selective and nonselective, and topical therapies. Moreover, behavior therapy is also a treatment option. Both medical and behavior therapies are intense to increase the intravaginal ejaculation latency time (IELT).

However, use of phosphodiesterase type 5 (PDE5) inhibitors in premature patients with or without erection dysfunction may increase both IELF and satisfaction of patients and their partners. The possible mechanisms are 1. modulation of the contractile response of the vas deferens, seminal vesicles, prostate and urethra, 2. induction of peripheral analgesia, 3. prolongation of the total duration of erection, 4. central role of the nitric oxide/cyclic guanosine monophosphate pathway, and 5. lessening of the central sympathetic output. Besides, combination of PDE5 inhibitors with behavior therapy for PE treatment increases more IELT than behavior therapy alone. However, Sildenafil-only was not superior to placebo or combination treatment. Topical EMLA-cream only has equal effectiveness to that of sildenafil plus topical EMLA treatment. The use of topical EMLA cream-only seems to be an effective treatment of premature ejaculation.

There are still many questions for treating PE with PDE5 inhibitors. We will discuss in the meeting. More studies and observation should be taken to clarify these questions.

【Evening Symposium】

The Priligy Korean Experience – A Deep Dive into Real Clinical Cases

Sung Won Lee MD & PhD
Professor of department of Urology, Samsung Medical Center,
Sungkyunkwan University School of Medicine,
Seoul, Korea

Premature ejaculation (PE) is one of the most prevalent male sexual disorders but the percentage to seek medical service is very low in Korea. This phenomenon is mainly caused by that laymen usually do not know the PE is a disease and can be treated. Public awareness is especially important in the field of PE.

In this session, I prepared three cases that I met in my clinic and will share my experience and discuss many points when we diagnose and treat PE patients.

三月一日（星期六）
成大醫學院 第二講堂
【不孕症研討會】

2014 TAA - About Male Infertility Issues		
時間	內容	座長
13:20-14:05	Debate I： Is Sperm Quality Deteriorated in Recent Decades? Pros: 黃志賢醫師（20 min） Cons: 張宏江醫師（20 min）	陳修聖醫師
14:05-14:50	Debate II： Can Sperm Quality be Improved by Medical Treatment? Pros: 林永明醫師（20 min） Cons: 吳建志醫師（20 min）	謝明里醫師
14:50-15:00	State of the Art: Is Home Sperm Test Helpful for "Managing" Male Infertility? 蔡芳生醫師	江漢聲醫師

【不孕症研討會】

Debate I (Pros)：

Is Sperm Count Declining? You May Take It Seriously.

William J. Huang, MD, PhD,
Professor, Department of Urology, School of Medicine, National Yang-Ming University,
Taipei Veterans General Hospital, Taipei, Taiwan

Since Carlsen's paper published in 1992 (Evidence for decreasing quality of semen during last 50 years. Br Med J 305:609), the controversies have continued for more than 20 years. Many other reviews included more expanded studies have further confirmed the findings of Carlsen's original work. WHO has progressively lowered the reference standard for a normal sperm concentration over time from 60 million/ml to 15 million/ml in the most recent 5th edition. A more careful examination on the included studies, researchers have found that the data collected from North America and Europe are majorly demonstrating a declining trend in sperm count over time. The data from the other areas does not show the trend. The environmental factors like chemicals including glycol ethers, organo-chorines, and exogenous estrogens have been implicated as factors in male infertility. Other factors are also influencing, such as stress, trauma, obesity, undernutrition, chemotherapy, smoking, polychlorinated biphenyls, dioxin and saturated fats. Particularly, the incidence of testicular cancer has increased significantly in the past decades. Although there are few reports showing evidence of no change or even increase in sperm count or quality over time, the reported studies are either limit in a localized area, or included only a small number of participants. The importance of the message is that we need to examine the possible etiology leading to the decline of sperm quality in developed countries, and doing efforts to slow down the trend and prevent it from happening in other developing countries.

【不孕症研討會】

Debate I (Cons)：

Is Semen Quality Deteriorated in Recent Decades?

張宏江
台灣大學醫學院附設醫院泌尿部

Whether the quality of semen has gradually deteriorated over time in men is under long-standing debate. Semen quality is related to fertility and is also a mirror of human environment wellness. In the presence, downward trend of semen quality is more often reported, and had gained more attention from the public and health authorities. But many contemporary reports also debates no differences on semen quality was found in recent decades. How to explain these contradictory findings of semen quality?

In this debate, the cons will present evidence to support the trends of semen quality is not decreased. Because semen sampling may be highly biased, whether the various samples are truly reflective of the source populations? We have reviewed the literatures and concluded that several defects in the studies of semen quality will give to bias and contrary results.

First, the methodology (e.g. techniques, equipments, sample collection) for semen analysis was not well controlled. Second, the selection of population has bias, i.e. donor of fertile man, pre-vasectomy, were included in the study. There are no general population data. Third, the study designs are retrospective and statistical models are not consistent. Fourth, several other biases included failing to account for age, geographic variations hampered the semen quality data inconclusively.

Although deteriorated semen quality were reported, but real human fertility is still strong. The productivity decline in some countries or ethnic groups is mostly due to the impact of non-fertility factor. These factors include late marriage, economic burden, life valueschange, and other social factors. Prospective studies in well-defined cohorts of men in various populations are required to evaluate the real status of male reproductive ability to clarify the potential effect of global environmental factors on male reproductive health. Before a well controlled research is completed successfully, we cannot yet conclude the trend of semen quality will go over time.

【不孕症研討會】

Debate II (Pros)：
Can Sperm Quality be Improved by Medical Treatment?

Yung-Ming Lin (林永明), M.D.

According to the EAU guideline on male infertility 2012 update: “There is no evidence that medical therapies, such as hCG, hMG, FSH, androgen, antiestrogen, dopamine receptor agonist, antioxidant and steroid improve pregnancy rates in partners of men with idiopathic infertility….. Hypogonadotrophic hypogonadism can be treated medically. The standard treatment is hCG, with the later addition of hMG or recombinant FSH, depending on initial testicular volume.” To date, in addition to hypogonadotropic hypogonadism, there are increasing reports showing that several specific etiologies of male infertility can be treated medically. For men with hyperprolatinemia, Cabergoline has been shown to have the highest efficacy in normalizing prolactin levels and shrinking prolactin-secreting tumors. The reversal of infertility occurs in ～50% of cases. Aromatase inhibitors have been successfully used in men with abnormal serum T/E2 ratio by stimulating intratesticular testosterone level and increasing sperm recovery rate prior to ICSI. PDE5 inhibitor can be used in infertile men due to sexual dysfunction. Cycled or continuous steroid therapy resulted in reduction of anti-sperm antibody titer in 50% of cases, with reported pregnancy rates ranging from 20% to 33%. High doses rhFSH may lead to an improvement of sperm concentration in patients with idiopathic, normogonadotropic (normal FSH level) oligoasthenoteratozoospermia. Cochrane Collaboration meta-analysis showed statistically significant four to five-fold increases in the pregnancy rates in men using assisted reproduction who are treated with antioxidants. Preliminary data show that antioxidants or combination therapy may improve semen parameter or pregnancy. Male infertility treatment is determined largely by the physician's ability to identify the specific cause a better understanding of the etiologies will more likely lead to successful treatment.

【不孕症研討會】

Debate II (Cons)：
Can Sperm Quality be Improved by Medical Treatment?

張孟霖 吳建志
臺北醫學大學附設醫院泌尿科

隨著在男性不孕症方面的進步, 仍然有約30%的男性不孕患者在目前是找不出確實的病因。這一類的病人目前歸類於 idiopathic infertility，治療上多是使用經驗性藥物治療 (empirical pharmacologic therapy) 或是求助於人工生殖技術 (assisted reproductive techniques)。臨床上若不孕患者尚有時間可以嘗試，經驗性藥物治療就會是一個優先的選擇。經驗性藥物治療包含了 gonadotropin releasing hormone agonist、gonadotropins (HCG/hMG)、antiestrogens、acromatase inhibitors、antioxidants、microneutrients (包括如 L-carnitine、L-arginine、vitamin E、folic acid、zinc、selenium、glutathione、coenzyme Q10 等)、以及中國和德國的中藥草藥。目前這些治療許多都是有小型的研究證明有效，但是缺乏更強更大規模的研究來佐證。今天的爭議性議題會以這些治療在精液品質這部分來探討，從證據力強弱、實驗設計、其他因素、治療效果做一個客觀的反面論述。

【不孕症研討會】

State of the Art: Is Home Sperm Test Helpful for "Managing" Male Infertility?

蔡芳生醫師
天成醫院泌尿科學

Sperm quality is one of the crucial factors for both fertilization and pregnancy. However, the laboratory-based semen analysis (SA) prevents men from conducting frequent SA at home, where men feel more comfortable and natural to collect semen samples than at doctors' offices. There are many trials to achieve home sperm test (HST) during these decades. The methods of different HST will be depicted and the advantages and disadvantages will be discussed in this brief talk.

There are some standards and principles which should be followed during conducting and interpreting HST. By following these standards and principles, some applications of HST will be introduced. And the relationship between HST results and pregnancy rate is also surveyed.

Finally, based on the necessity of HST, a new technology of microfluidic for HST will be demonstrated and discussed.

三月一日（星期六）
成大醫學院 第二講堂
【感染議題】專題演講

座長：楊緒棣醫師

時間	講題	主講人
15:20-15:45	Recent Advancement in the Management of Genital Herpes	李瀛輝醫師
15:45-16:10	Recent Advancement in the Management of HPV Infection 無論台灣或美國泌尿生殖器疣 Urogenital Warts 占所有的性傳染（Sexually Transmitted Disease STD）發病率都是第一位	林介山醫師

【感染議題】

Recent Advancement in the Management of Genital Herpes

李瀛輝醫師
高美泌尿科診所院長

生殖器皰疹是一種相當常見的性病，主要是經由第 1 型單純皰疹病毒(HSV-1)或第 2 型單純皰疹病毒(HSV-2)傳染，病毒是經由身體接觸散播，傳染的途徑包括：口交、性交與肛交。病毒穿透陰莖、尿道口、陰道、子宮頸、外陰、肛門、臀部的皮膚或粘膜，侵入身體的健康細胞。過去，生殖器皰疹大多是經由 HSV-2 傳染，現在因為性伴侶熱衷口交，HSV-1導致生殖器皰疹的病例也愈來愈多。許多感染生殖器皰疹的病人，症狀非常輕微，甚至沒有症狀，導致生殖器皰疹容易在性伴侶中散播，感染後有些病人只發作一次，但是九成病人會復發。

生殖器皰疹典型的症狀是先出現水泡、紅斑與搔癢，接著水泡破掉，形成疼痛性潰瘍，通常 2 至 4 週才會逐漸癒合。第一次發作生殖器皰疹的病人，症狀比較嚴重，可能合併類流感的症狀，例如：發燒、骨頭酸痛與淋巴腺腫大等。生殖器皰疹常會復發，尤其是發作後的第一年，通常復發性生殖器皰疹的症狀，比較輕微，時間也較短。由於皰疹會造成生殖器皮膚或口腔、陰道與直腸等粘膜潰瘍，因此會增加罹患愛滋病或其他性病的風險。病人臨床上出現典型生殖器皰疹的症狀，醫師用目視就可診斷。此外，抽血檢查測試 HSV-1 與 HSV-2 抗體，或者自病兆處取樣做病毒培養，用 PCR 分型檢測單純皰疹病毒，都可當做臨床治療的依據。

目前沒有藥物可以治癒皰疹，但是口服抗皰疹病毒藥物 (包括：acyclovir, famciclovir 與 valacyclovir 等) 可以縮短生殖器皰疹的病程、減輕症狀，也可以預防生殖器皰疹的發作與病毒脫落 (viral shedding)。此外，每日服用抗皰疹病毒藥物可以減低病人傳染生殖器皰疹給性伴侶的機率。我們的臨床經驗顯示：每日服用一次抗皰疹病毒藥物的抑制性療法 (suppressive therapy)，效果非常好。一旦生殖器皰疹發作，應該避免性行為，必須等待水泡或潰瘍完全癒合後，才可以性行為。一旦感染生殖器皰疹，即使沒有症狀，使用保險套是避免生殖器皰疹傳染最保險的方法，女用避孕套比男性保險套更有保護作用。當生活壓力大、情緒緊張、身體抵抗力差的時候，生殖器皰疹常會復發；所以要充分休息、飲食均衡、避免刺激性食物與飲料，調適生活壓力來減低生殖器皰疹復發。

目前許多藥廠與研究單位，正積極研發皰疹疫苗，雖然這些疫苗尚未上市，但是也初步獲得一些成效，其中包括：HSV-1 疫苗：GSK vaccine。 HSV-2 疫苗：GEN-003、Alpha-Vax、QS-21 Stimulon adjuvant 與(NasdaqGS:VICL) Vaxfectin-formulated therapeutic vaccine 等等。皰疹疫苗真正是否能預防生殖器皰疹，尚待後續研究結果來証明，大家且拭目以待。

【感染議題】

Recent Advancement in the Management of HPV Infection
無論台灣或美國泌尿生殖器疣 Urogenital Warts 占所有的性傳染（Sexually Transmitted Disease STD）發病率都是第一位

林介山醫師

泌尿生殖器疣 Urogenital Warts 或稱尖狀(圭)濕疣 condyloma acuminata 主要是由人類乳突病毒（Human papillary virus 簡稱 HPV）感染，大多數是經通過性接觸感染，無論性器對性器, 手對性器或口對性器 (Genital-genital, manual-genital, oral-genital) 都可能有感染的機會。適當的保險套防護可能減少感染的危機，但是並不能完全防止感染。非性接觸感染也可能由母親的 HPV 經產道感染到嬰兒也就是垂直感染 Mother to newborn（vertical transmission)。其他手術時器械、毛巾、手套，或公共場所如不潔的旅館、廁所、浴室等等，若有存活的 HPV，感染的機會也不能完全排除。有些人感染人類乳突病毒，因為不痛不癢，在不知不覺之中傳染給性伴侶，這位性伴侶也就不明不白得到對方的禮物了。人類乳突病毒造成尖狀濕疣出現的時間，依病毒的毒性強度或被感染者的免疫能力而有所差異, 也就是會影響潛伏期的長短，甚至於性伴侶彼此可能雙方都出現尖狀濕疣，也可能單方出現，如此情況診斷及病情解說要更加小心以免徒增無謂的紛擾。

人類乳突病毒（Human papillary virus 簡稱 HPV）感染造成人類身體的病變依照其侵患的部位有不同的疾病出現：

臨床上沒有症狀的 Latent HPV infection（No clinically visible lesions)，肛門及外生殖泌尿器尖狀濕疣（Anogenital warts)，陰莖及肛門內皮細胞新生物 Penile & anal intraepithelial neoplasia (PIN, AIN)，陰莖癌 Penile cancer，肛門癌 Anal cancer，頭頸部癌症 Cancers of the head/neck，反復呼吸道乳突瘤病 Recurrent respiratory papillomatosis。

流行病學：

- 從流行病學觀察人類乳突病毒之傳染, 發生率與流行率的統計常常是低估的, 而且初診時不易判斷病毒感染是最近或感染已久的病灶。在許多國家 HPV 或陰部疣並非常規須通報的傳染病，因此過去台灣也像其他國家難已估算發生率與流行率。
- 人類乳突病毒分類依照 Easychip HPV Blot Test, PCR Genotyping Array-According to the study of Nubia Muñoz et 可分為：
  - 高危險致癌基因群 (High risk carcinogenic strains) -- HPV types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, 82, MN4 are.
  - 可能致癌基因群（Probably carcinogenic strains）-- HPV 26, 53, 66
  - 低危險或未知致癌基因群 (Low risk of carcinogenic strain or unknown risk of carcinogenicity) -HPV 6,11,32,37,42,43,44,54,55,61,62,67,69,70,71,72,74, 81,84

- HPV 是一種秘密行動的病毒（Stealth virus），感染 24 至 48 小時皮膚細胞就會產生免疫反應，活化皮膚成長，或再經過 6 至 12 個月之後，由於血清漿液轉化成 L1 抗體造成 8 至 14 個月後有些患者保持臨床上緩解, 無症狀出現，有一些就可能出現反覆或持續出現濕疣。因為這些結果是和被感染者的免疫反應有關，這些機轉如下: No blood-born phase of infection。

有時由於病毒 DNA 進入患者的 DNA 內，p53 等干擾 造成 E6, E7 的過度表現（overexpression）促成細胞分化及突變進展成為癌症。

臨床症狀和病史 Clinical Manifestations and Nature History

- 平均潛伏期約 3 個月，約在最初暴露感染開始 3 星期至幾年都有可能出現初期症狀。
- 垂直感染經產道感染給嬰兒（Vertical transmission by Genito-Nasophryngeal route）
- 經由器械、密切接觸物品感染（Transmission by fomites from inanimate objectes）
- 感染部位大多數是在潮濕無毛的皮膚（Moist non-hair-bearing skin），主要侵患陰唇、陰道、子宮頸、會陰、陰莖和肛門。
- 有不同外觀的病灶，可能出現融和（confluent），廣基的（Broad based），漸漸進展成巨大有梗蒂的（large pedunculated），菜花模樣的皮膚突起腫塊（Sessile plaque），也因此俗稱菜花（Cauliflower-like masses），這些尖狀濕疣少數可能自然消失，大多數繼續存在或成長。
- 原發性尖狀濕疣（Primitive Condyloma acuminate）
- 混和型尖狀濕疣（Mixed type Condyloma acuminate With ulceration）
- 復發性的尖狀濕疣（Recurrent Condyloma acuminate）
- 多發性尖狀濕疣 Confluent, Sessile plaque, pedunculated Cauliflower-like masses of the giant warts

長在肛門的尖狀濕疣有時會發現術後屢次復發就須做病理切片檢查有時可發現皮膚黏膜惡性腫瘤或癌前期 Bowen's disease。

辨認和診斷 Identification and Diagnosis

- 在臨床大多以肉眼即可認出是陰部尖狀濕疣。
- 在 Subclinical Infection, Latent Infection 時就要用 HPV DNA by PCR，細胞學或病理片檢察來判斷。
- 須要切片檢查的情況是：
  陰部尖狀濕疣在標準療法無法有效時或更壞時，濕疣是色素沉澱，潰爛，硬結。

造成贅疣以及可能形成惡性腫瘤的基因型（Genetic Types of Papillomavirus and Cancer risk）

Condition	HPV subtype
Condyloma acuminata	6,11
Verrucous carcinoma	6,11
Bowenoid papulosis	16,31,32,34,35,37,42
Erythroplasia of Queyrat Intraepithelial neoplasia, invasive carcinoma (cervix, vulva, vagina, penis, anus)	16,18,31,33,35,39, 42,43,44,45,51,52,56

治療：

通常用來治療陰部疣有下列幾種（treatments for genital warts）：

患者自行外用（Patient applied）。

Podophylllin, Podofilox, 5FU: 45-82%藥效，0-91%復發率。

Imiquimod 有 37-85%藥效，13-19%復發率。有促進免疫的作用，對濕疣 moist warts 特別有效，總而言之，療效與復發率和患者對醫囑的順從性仍有極大的關係。

醫師所能提供的治療（Provider Administered）：

局部治療：低溫冷凍（Cryotherapy）、電刀灼燒（Electrocautery Diathermy）、雷射切除（Laser ablasion）、Photodynamic Therapy 都是局部治療的方法，有效療率約 30%至 97%不等，其復發率約有 20 至 79%不等的復發率。

全身治療：有干擾素（Interferons）

用　　法：IM, SC, Intralesional。有 30-50%有效，但是要注意患者可能出現類似感冒（Flu-like）的症狀，也可能出現白血球減少（leucopenia）的副作用。Retinoids (Vitamin A) 用於化學預防 (Chemoprevention) 亦有文獻報導，但是有多少實證醫學的證據就沒有查到。

以上文摘自 *Huaman Papilloma virus: Beware the infection you can not see (Australian Family Physician Vol. 32, No.5, 2003)*

預防：

■保險套能否預防生殖器人類乳突病毒的感染? 記載在 Sexually Transmitted Diseases Nov. 2002，Peer-reviewed literature and meta-analysis on condoms and HPV-related conditions published in the English language from 1980 to 2001。總共有 20 篇符合條件包含個案對照群研究（Case-control studies）發現保險套能夠預防生殖器人類乳突病毒的感染，但是有另外兩篇研究（military recruits and men & women attending an STD clinic）評估保險套與預防生殖器人類乳突病毒的感染的關聯並不那麼一致性，反而顯示保險套對愛滋病毒 (HIV) 的預防有效。

■2006 年美國 FDA 通過預防生殖器人類乳突病毒疫苗（如 Gardasil）可用在至 26 歲女性預防感染 HPV type6,11, 16, 18 導致子宮頸、陰唇、陰道尖狀濕疣、癌前期或癌症的發生（cancer caused by HPV types 16 and 18; precancerous lesions caused by types 6, 11, 16, and 18; and genital warts caused by types 6 and 11.）人類乳突病毒的感染（HPV）引起尖狀濕疣在美國已是最常見的性感染疾病，大約每年有千分之二的新病例發現。因此 FDA 在 2009 年通過預防生殖器人類乳突病毒疫苗用在預防男性尖狀濕疣感染（Approves New Indication for Gardasil to Prevent Genital Warts in Men and Boys）。

■Gardasil（Merck and Company）：對預防 HPV types 6 and 11 感染導致的尖狀濕疣感染約 90%有效，Gardasil 之用法是在半年內打完三劑，最常見的副作用是頭痛、發燒、打針處局部疼痛、發癢、紅腫等等局部不適。

■預防生殖器人類乳突病毒疫苗可用在已經感染過 HPV 的病人嗎？婦女在未有性行為之前施打疫苗最大的好處是因為疫苗只有預防感染並不具治療的作用。若疫苗包含 HPV 幾種不同基因型（genetic types）甚至於就是她們已經感染一種或以上的基因型仍然因接種疫苗而得到剩餘的效益（residual benefit）。到現在為止，通常不需要事先檢驗證實沒有感染 HPV 的婦女才打疫苗，因為施打疫苗前做篩檢調查是否有感染 HPV 再施打疫苗是不實際的。

在台灣 5 個醫學中心（Taiwan - 5 sites / 223 patients）也做過 HPV 疫苗 223 人的臨床試驗（Protocol 020 - Recruitment in Taiwan）對 HPV type6,11, 16, 18 之預防效率（Observed Efficacy）有 84.3%，其副作用與國外的報導相同，除了少數注射局部症狀及類似感冒之症狀，並無嚴重之全身副作用。

三月二日（星期日）
成大醫學院 第三講堂
【Interactive Panel】

Late Onset Hypogonadism			
時間	內容	座長	共同研討 醫師群
09:20-10:00	Late Onset Hypogonadism: Cases Discussion	王起杰醫師	吳季如醫師 黃世聰醫師 簡邦平醫師

三月二日（星期日）
成大醫學院 第三講堂
【兩性議題】

座長：謝政興醫師

時間	講題／主講人	
11:10-12:00	醫療性騷擾之防範及因應 柯乃熒 教授 美國西雅圖華盛頓大學博士 國立成功大學護理學系教授 國立成功大學附設醫院兼任督導長	

【兩性議題】

醫療性騷擾之防範及因應

柯乃熒 教授
成大護理系(所)暨公共衛生研究所教授

醫療性騷擾泛指所有在醫療院所中發生的性騷擾事件，例如民眾就醫時發生的不愉快觸診經驗、醫護人員甚至實習生曾被性騷擾之不愉快事件等，本次演講內容將針對醫療院所發生性騷擾普遍嚴重情形與現行法律進行說明。

三月一日（星期六）
成大醫學院　第三講堂
【一般論文發表】
Erectile Dysfunction

座長：王起杰醫師　李祥生醫師

時間	內容
08:10-08:20 ED-1	Are the Prevalence of Anxiety and Depression H\higher in Young Men with Erectile Dysfunction? 年輕男性勃起功能障礙是否有較高比率之焦慮症與憂鬱症？ 歐穎謙 楊文宏 林永明 國立成功大學醫學院附設醫院泌尿部
08:20-08:30 ED-2	Screening for Metabolic Syndrome and Hypogonadism in Men with Erectile Dysfunction 勃起功能障礙男性篩檢代謝症候群與睪固酮缺乏症 簡邦平 高雄榮民總醫院 教學研究部 國立陽明醫學院 醫學系
08:30-08:40 ED-3	A Local Observation of the Perspective of Pharmacists to Phosphodiesterase Type 5 Inhibitors for Erectile Dysfunction 專業藥師對第五型磷酸二脂酶抑制劑與勃起功能障礙的觀點之地區性調查 盧致誠 范文宙　鄭哲舟 奇美醫療財團法人柳營奇美醫院 外科部 泌尿外科
08:40-08:50 ED-4	Data on the Utilization of Treatment Modalities for Erectile Dysfunction in Taiwan in the Era of Phosphodiesterase Type 5 Inhibitors 在 PDE5 抑制劑時代台灣勃起障礙治療模式之運用資料 蔡維恭 [1] 簡邦平 [2] 馬偕紀念醫院 泌尿科 [1] 高雄榮民總醫院 教學研究部 基礎醫學研究科 陽明大學醫學系 [2]
08:50-09:00 ED-5	Association of Catechu Nut Chewing with Risk of Erectile Dysfunction 嚼食檳榔與勃起功能障礙風險 簡邦平 高雄榮民總醫院 教學研究部 國立陽明醫學院 醫學系
09:00-09:10 ED-6	Subsequent Cardiovascular Diseases and Mortality in Men Presenting with Erectile Dysfunction 勃起功能障礙患者繼發心血管疾病與死亡原因 簡邦平 高雄榮民總醫院 基礎醫學研究科 國立陽明醫學院 醫學系
09:10-09:20 ED-7	Effects of Silodosin on Sexual Function in Men with LUTS: A Preliminary Report 西羅多幸對有下泌尿道症狀之男性的性功能的作用 羅啟文 張尚仁 謝政興 林佳達 楊緒棣 台北慈濟醫院泌尿科 慈濟大學泌尿部
09:20-09:30 ED-8	Intracavernous Injections of Endothelial Progenitor Cells to Restore Erectile Function in Bilateral Cavernous Nerve Injury Rats 陰莖海綿體內注射血管內皮前驅細胞可改善海綿體神經受損小鼠的勃起功能 廖俊厚 [1,2] 吳宜娜 [1,2] 劉詩彬 [3] 江漢聲 [1,2] [1] 耕莘醫院泌尿科 [2] 輔仁大學基礎醫學研究所 [3] 台大醫院泌尿部
09:30-09:40 ED-9	Effects of Tadalafil Treatment on Erectile Function Recovery Post Bilateral Nerve-Sparing Radical Prostatectomy Tadalafil 在雙側神經保留根除性攝護腺切除手術後對於勃起功能恢復之效果 葉如芬 禮來股份有限公司 醫藥學術部

三月一日（星期六）
成大醫學院　第二講堂
【一般論文發表】
Prostate and LUTS

座長：劉詩彬醫師　陳志碩醫師

時間	內容
08:10-08:20 P-1	The Use of Prophylactic Antibiotics for Prostate Biopsy – A 5 years Changhua Christian Hospital Clinical Experiences of 583 Patients 經直腸攝護腺切片術後的預防性抗生素使用–彰化基督教醫院 2008 到 2012 年 583 位病人的經驗分享 陳柏華 張進寶 王百孚 林介山 嚴孟意 江恆杰 黃勝賢 陳俊吉 黃國軒 石宏仁 張建祥 彰化基督教醫院 外科部 泌尿科
08:20-08:30 P-2	Significant Correlative Factors for Acute Urinary Retention after Transurethral Resection of Prostate - A Nation-wide Database Study 經尿道攝護腺刮除術後急性尿滯留之顯著相關因子 魏子鈞[1] 林志杰[1,3] 陳曾基[2] 林登龍[1,3] 鍾孝仁[1,3] 黃逸修[1,3] 陳光國[1,3] 台北榮民總醫院 泌尿部[1] 家庭醫學部[2] 國立陽明大學醫學院泌尿學科 及 書田泌尿科學研究中心[3]
08:30-08:40 P-3	Correlation between Subjective Symptom Severity and Objective Urodynamic Study and Image Parameter in Male OAB 男性膀胱過動症病人之主觀症狀嚴重度與尿路動力學檢查及影像參數之相關性 呂仕彥[1,3] 楊家敏[1,3] 林登龍[1,2,3] 陳光國[1,2,3] 台北榮民總醫院外科部泌尿科[1] 國立陽明大學醫學院泌尿學科[2] 書田泌尿科學研究中心[3]
08:40-08:50 P-4	Complications of Transurethral Resection of Prostate with Laser: Results at Two Institutions 雷射經尿道攝護腺刮除手術之併發症 翁竹浩 楊志東 張奐光 周永強 蔡維恭 林文榮 林文州 江百凱 陳建志 許炯明 台北馬偕紀念醫院 泌尿科
08:50-09:00 P-5	Role of Trichomoniasis Infection in Patients with High PSA Level but with Negative of Malignancy: A Preliminary Report 陰道滴蟲感染在非攝護腺癌但高攝護腺特異抗原病人中所扮演的角色：初步報告 陳煜 謝明里 黃世聰 黃信介 許毓昭 張博誌 林口長庚紀念醫院 泌尿科 長庚大學
09:00-09:10 P-6	Role of Trichomoniasis Infection in Patients with Chronic Prostatitis / Chronic Pelvic Pain Syndrome: A Preliminary Report 陰道滴蟲感染在慢性攝護腺炎/慢性骨盤腔疼痛症候群病人中所扮演的角色：初步報告 陳煜 謝明里 黃世聰 黃信介 許毓昭 張博誌 林口長庚紀念醫院 泌尿科 長庚大學
09:10-09:20 P-7	Primary Testicular Lymphoma – Clinical Experience of Taipei Veteran General Hospital 原發性睪丸淋巴瘤—台北榮總之臨床經驗報告 陳威任[1] 郭俊逸[1, 2, 3] 林志杰[1, 2, 3] 林登龍[1, 2, 3] 陳光國[1, 2, 3] 台北榮民總醫院外科部泌尿外科[1] 國立陽明大學醫學系泌尿學科[2] 書田泌尿科學研究中心[3]

三月二日（星期日）
成大醫學院　第二講堂
【一般論文發表】
Infertility

座長：謝明里醫師　吳建志醫師

時間	內容
08:00-08:10 I-1	Mechanism of Male Germ Vell Survival during Embryonic Development 胚胎發育期雄性生殖細胞存活之機轉 林靜怡 呂淳雯 楊文宏 林永明 國立成功大學醫學院 泌尿科
08:10-08:20 I-2	Establish An Male Reproductive Aging Model 建立一個男性生殖老化動物模式 陳秋瑋[1] 廖俊厚[2] 陳炳輝[3] 江漢聲[1] 林盈宏[1] 天主教輔仁大學 基礎醫學研究所[1] 財團法人天主教耕莘醫院 泌尿外科[2] 輔仁大學 食品科學系[3]
08:20-08:30 I-3	29 CpG Sites in MAEL Promoter Region are Crucial for Epigenetic Regulating Mechanism of Human Spermatogenesis MAEL基因啟動子上的29個CpG位點在人類造精功能的表遺傳調控扮演重要角色 鄭裕生[1,2] 馬秀燕[3] 呂淳雯[3] 林永明[3] 成大斗六分院泌尿科[1] 成大臨床醫學研究所[2] 國立成功大學醫學院泌尿科[3]
08:30-08:40 I-4	Copy Number Alteration of *Solute Carrier Family 9 Sodium/hydrogen Exchanger Isoform 3, SLC9A3*, is Associated with Susceptibility to Congenital Bilateral Absence of the Vas Deferens 鈉氫離子交換蛋白基因拷貝數變異與先天性輸精管缺損之相關性 吳宜娜[1,2] 廖俊厚[1,2,3,4] 林盈宏[2] 林勇志[2] 吳建志[6,7] 江漢聲[2,7] 輔仁大學食品營養博士學程[1] 輔仁大學基礎醫學研究所[2] 天主教耕莘醫院外科部 泌尿外科[3] 輔仁大學醫學系[4] 台北醫學大學 醫學系[5] 台北醫學大學附設醫院 泌尿科[6]
08:40-08:50 I-5	Dietary Intake and Semen Quality in Taiwanese Men 臺灣男性飲食攝取與精液品質之相關性探討 劉沁瑜[1] 曹智惟[2,4] 趙振瑞[3] 徐建業[4] [1]輔仁大學營養科學系 [2,3]國防醫學院 三軍總醫院外科部 泌尿外科 [3]臺北醫學大學 保健營養學系 [4]臺北醫學大學 醫學資訊研究所
08:50-09:00 I-6	An Exploration of the Association between Obesity and Semen Quality among 2,036 Taiwanese Men 探討臺灣男性族群肥胖與精液品質之相關聯性 曹智惟[1,2] 劉沁瑜[3] 蒙恩[1] 吳勝堂[1] 查岱龍[1] 孫光煥[1] 于大雄[1] 陳宏一[1] 張聖原[1] 徐建業[2] [1]國防醫學院 三軍總醫院 外科部 泌尿外科 [2]臺北醫學大學 醫學資訊研究所 [3]輔仁大學營養科學系

三月二日（星期日）
成大醫學院　第二講堂
【一般論文發表】
Infertility

座長：張宏江醫師　曹智惟醫師

時間	內容
09:00-09:10 I-7	Up Regulation of miR630 by Heat Shock Inhibit Sertoli Cell Proliferation *in vitro* 熱休克上升調控微核糖核酸630及抑制史托立細胞增生 呂淳雯 馬秀燕 林靜怡 楊文宏 林永明 國立成功大學醫學院 泌尿科
09:10-09:20 I-8	Clinical Characteristics and Epigenetic Regulation in Infertile Men with Hypospermatogenesis 不孕症男性合併睪丸造精功能低下之臨床表徵及表觀基因調控 鄭裕生 林宗彥 楊文宏 林永明 國立成功大學醫學院附設醫院泌尿科 國立成大醫院斗六分院泌尿科 國立成功大學醫學院臨床醫學研究所
09:20-09:30 I-9	Dynamic Expression of SEPT12 Affects the Integration of Nuclear Envelope during Human Spermiogenesis 於人類精子形成過程中 SEPT12 調控核膜的結構 郭昱廷 [1] 林盈宏 [1] 江漢聲 [1] 汪雅雲 [2] 郭保麟 [2] 輔仁大學 基礎醫學研究所 [1] 成功大學 婦產科 [2]
09:30-09:40 I-10	SEPT12-Microtubule Complexes are Required for Sperm Head and Tail Formation 於精子頭部與尾部形成過程需要 SEPT12 與微管複合蛋白參與 林盈宏 [1] 江漢聲 [1] 汪雅雲 [2] 郭保麟 [2] 輔仁大學 基礎醫學研究所 [1] 成功大學 婦產科 [2]
09:40-09:50 I-11	Induction of Spermatogenesis in an Infertile Man with Robertsonian Translocation after Varicocelectomy 精索靜脈曲張結紮手術促進不孕症男性合併羅伯遜轉位之造精功能 林宗彥 鄭裕生 楊文宏 林永明 國立成功大學醫學院附設醫院斗六分院泌尿科 國立成功大學醫學院附設醫院泌尿科 國立成功大學醫學院臨床醫學研究所
09:50-10:00 I-12	The Application of Real-time Testicular Touch Print Smear in Testicular Sperm Extraction - IntraCytoplasmic Sperm Injection Treatment for Non-obstructive Azoospermia 術中睪丸抹片對於非阻塞性無精症病患睪丸取精 - 單一精子卵質內顯微注射之應用 黃奕燊 [1] 黃志賢 [1, 2, 3] 林登龍 [1, 2, 3] 陳光國 [1, 2, 3] 台北榮民總醫院泌尿部 [1] 國立陽明大學醫學系泌尿學科 [2] 書田泌尿科學研究中心 [3]

三月二日（星期日）
成大醫學院　第二講堂
【一般論文發表】
Basic study, Premature Ejaculation and others

座長：張進寶醫師　陳修聖醫師

時間	內容
10:40-10:50 O-1	Effect of α–Adrenergic Blockers on Major Pelvic Ganglion Stimulation -Induced Seminal Vesical Pressure Increase in the Rat 阿爾法-交感神經阻斷劑對主要骨盆神經節刺激引起大白鼠儲精囊內壓增加之效果 陳光國 張心湜 台北榮民總醫院外科部泌尿外科　國立陽明大學書田泌尿科學研究中心
10:50-11:00 O-2	The Effects of Intratesticular Etanercept Administration on in vivo hCG-stimulated Testosterone Secretion in Hyperprolactinemic Male Rats 睪丸內注射 Etanercept 對高泌乳素血症雄鼠在人類絨毛膜性腺激素誘發睪酮分泌之效應 王中麟[2] 陳宏桓[2] 林孝欣[2] 陳宇綮[2] 浦筱峰[2] 林登龍[1,3,4] 陳光國[1,3,4] 黃志賢[1,2,3,4] 國立陽明大學醫學院 醫學系 泌尿學科[1] 及 生理學科[2] 書田泌尿科學研究中心[3] 臺北榮民總醫院 泌尿部[4]
11:00-11:10 O-3	The Survival Effect of Etanercept on Germ Cells of Hyperprolactinemic Male Rats is through a NF- κ B Signaling Pathway Etanercept 對雄性高泌乳素大鼠生殖細胞凋亡存活的效應是經由 NF- κ B 訊息傳遞的路徑 陳宏桓[1,2] 林孝欣[1,2] 王中麟[1,2] 陳宇綮[1,2] 林登龍[2,3,4] 陳光國[2,3,4] 黃志賢[1,2,3,4] 國立陽明大學醫學院生理學科[1]及泌尿學科[2] 書田泌尿科學研究中心[3] 臺北榮民總醫院 泌尿部[4]
11:10-11:20 O-4	Morphological Evidences of Dorsal Penis Nerve Changes in Bilateral Cavernous Nerve Crush Model of Rat 雙側海綿體神經損傷大鼠陰莖背神經變化的形態學證據 陳燕麟[1,2,3] 吳宜娜[3,4] 廖俊厚[3,4,5,6] 林盈宏[3] 林勇志[3] 吳建志[7,8] 江漢聲[3,8] 天主教耕莘醫院病理部[1] 輔仁大學化學系[2] 輔仁大學基礎醫學研究所[3] 輔仁大學食品營養博士學程[4] 天主教耕莘醫院 外科部 泌尿外科[5] 輔仁大學醫學系[6] 台北醫學大學醫學系[7] 台北醫學大學附設醫院泌尿科[8]
11:20-11:30 O-5	Prevalence of Premature Ejaculation and Its Association with Psychological Factors 早洩盛行率與心理因子的相關性 簡邦平 高雄榮民總醫院 基礎醫學研究科 國立陽明醫學院 醫學系
11:30-11:40 O-6	Chronic Prostatitis is a Risk Factor to have Premature Ejaculation: A Database Study in Taiwan 慢性攝護腺炎對於早發性射精是個危險因子：台灣健保資料庫研究 林健煇[1] 陳志碩[1] 何東儒[1] 吳靖方[1] 林威宇[1] 黃雲慶[1] 邱國雄[2] 嘉義長庚記念醫院 泌尿外科[1] 嘉義長庚記念醫院 手術專責護理師[2]
11:40-11:50 O-7	High Flow Priapism Following Straddle Injury - One Case Report 會陰跨騎受傷後引起高血流陰莖持續勃起－壹病例報告 何明錫 簡邦平 高雄榮民總醫院 外科部 泌尿外科
11:50-12:00 O-8	The Effect of Lower Urinary Tract Symptoms on Female Sexual Dysfunction 下泌尿道症狀對女性性功能之影響 郭育成[1,2] 沈恆立[1] [1]臺北市立聯合醫院陽明院區泌尿科 [2]慈濟大學醫學系泌尿學科

ED-1

年輕男性勃起功能障礙是否有較高比率之焦慮症與憂鬱症？

歐穎謙 楊文宏 林永明
國立成功大學醫學院附設醫院泌尿部

Are the Prevalence of Anxiety and Depression Higher in Young Men with Erectile Dysfunction?

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Objectives: To evaluate whether the prevalence of anxiety and depression are higher in young men with erectile dysfunction (ED) compared to elderly.

Materials and Methods: One hundred and fifty one patients with ED were enrolled in this study. The clinical characteristics, IIEF-5 and the anxiety and depression symptoms (Hospital Anxiety and Depression Scale (HADS)) were retrospectively reviewed. Patients were divided into two groups being less than, or more than, 40 years old. HADS score of eight or higher was defined as a subject suffering from anxiety or depression, respectively. Furthermore, the patients were subdivided into four groups in two age strata according to the presence or absence of anxiety/depression status: A-D- group; A+D- group; A-D+ group and A+D+ group. Unpaired t test and Chi square test were used to evaluate the difference in HADS symptom score and prevalence of anxiety or depression between the two age groups.

Results: Of the 151 patients, 29 (19.2%) were less than 40 years old. The anxiety score for patients less than 40 years old ranged from 2 to 17 with a mean of 8.2±0.7, whereas the score for patients more than 40 years old ranged from 0 to 20 with a mean of 7.5±0.4 ($P = 0.4117$). The depression score for patients less than 40 years old ranged from 0 to 12 with a mean of 5.4±0.6, whereas the score for patients more than 40 years old ranged from 0 to 16 with a mean of 5.9±0.3 ($P = 0.5534$). The total HADS for patients less than 40 years old ranged from 4 to 25 with a mean of 13.6±1.1, whereas the score for patients more than 40 years old ranged from 1 to 35 with a mean of 13.3±0.6 ($P = 8413$). The prevalence of 4 different anxiety/depression status in two age strata were not significant different ($P = 0.4697$).

Conclusions: Our results do not show higher prevalence of anxiety or depression in young men. More patients will be enrolled in this ongoing project to offer a better statistical power of the result.

ED-2

勃起功能障礙男性篩檢代謝症候群與睪固酮缺乏症

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Screening for Metabolic Syndrome and Hypogonadism in Men with Erectile Dysfunction

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School of Medicine, National Yang-Ming University

Objectives: Erectile dysfunction (ED) is a portal to men's health. We assess the prevalence of metabolic syndrome (MetS) and testosterone levels in men presenting with erectile dysfunction (ED).

Methods and Materials: The information of ED patients was collected by Kaohsiung Veteran Hospital from Dec. 2010 to Jul. 2011. Male subjects presenting to urological outpatient clinics with ED were screened for MetS. Blood sampling was used for quantifying total testosterone (TT) level, fasting glucose (FBG), triglycerides (TGs), total cholesterol, high-density lipoprotein-cholesterol (HDL-C), low-density lipoprotein-cholesterol (LDL-C). Criteria for MetS followed the rules set by International Diabetes Federation (IDF). Erectile function was assessed by the Sexual Health Inventory for Men (SHIM). All the participants signed the written inform consent to join the study. The Independent Review Board reviewed and approved the study.

Results: A total of 1640 subjects completed the study with data eligible for analysis from 2009 to 2013 with a mean age of 52.4 ± 13.5 yrs (19–88) and a mean TT of 4.4 ± 1.9 ng/mL (0.2–15.4). Of 1640 subjects with ED, 27.2% (447/1640) met the criteria of MetS. The prevalence of MetS increased with the increase of age and reached plateau after age group of 40-49. Subjects with MetS had a higher BMI, a higher prevalence of hypogonaidsm and worse lipid profiles and erectile function than those without MetS. Of 1383 subjects with T levels, 36.5% (505/1383) had hypogonadism (defined by TT <3.48 ng/mL). Serum TT levels decreased as the number of MetS components increased after adjustment for age. Compared with eugonadal subjects, hypogonadal subjects were older in age and had a higher prevalence of MetS and its individual components. The TT levels had significantly negative correlation with age, waist circumference and TGs in multiple logistic regression analysis..

Conclusions: Mets is commonly seen in men with ED and is associated with low TT levels. Of metabolic syndrome components, central obesity and TGs have negative correlation with TT levels in ED subjects in multivariate analysis.

ED-3

專業藥師對第五型磷酸二脂酶抑制劑與勃起功能障礙的觀點之地區性調查

盧致誠 范文宙 鄭哲舟
奇美醫療財團法人柳營奇美醫院 外科部 泌尿外科

A Local Observation of the Perspective of Pharmacists to Phosphodiesterase Type 5 Inhibitors for Erectile Dysfunction

Chih-Cheng Lu, Wen-Chou Fan Tse-Chou Cheng
Division of Urology, Department of Surgery, Chi Mei Medical Center, Liouying

Objectives: To explore and evaluate the perspective to the use of phosphodiesterase type 5 inhibitors (PDE5I) among the professional pharmacists when encounter erectile dysfunction (ED).

Materials and Methods: A questionnaire with Lickert-type scale dealing with the preferences was applied to a local professional pharmacist group in southern Taiwan. The questionnaire consisted of 3 categories. The first type of questions was for preferring attitude of self-taking PDE5I if the pharmacists had been diagnosed ED. The second type of questions was for possible recommending use of PDE5I to the other ED patients who had a good rapport with the pharmacists. The third type of questions was for the role of taking PDE5I to cure ED. Which kind of PDE5I was thought to be most common used (prescribed by physicians) in their practice was also surveyed.

Results: A total of 195 pharmacists entered this study anonymously. There were 84 male and 111 female. The mean age was 47.0 years (ranged from 24 to 80). If the male pharmacists had ED, more than 70% of them would possibly take PDE5I for themselves in advance. In some ED patients who had a good rapport with the pharmacists, around 60% of the pharmacists possibly recommended PDE5I for the patients. For ED treatment, around 40% of the pharmacists thought that PDE5I would not possible cure the ED. Among the 3 PDE5I available in Taiwan, Sildenafil Citrate was the most prescribed PDE5I.

Conclusions: From this study, more than seventy percent of the pharmacists will possibly take PDE5I themselves. Sildenafil Citrate is the most common known prescribed PDE5I among the pharmacists. Further and larger studies are warranted to confirm the findings.

ED-4

在 PDE5 抑制劑時代台灣勃起障礙治療模式之運用資料

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馬偕紀念醫院 泌尿科 [1]
高雄榮民總醫院 教學研究部 基礎醫學研究科 陽明大學醫學系 [2]

Data on the Utilization of Treatment Modalities for Erectile Dysfunction in Taiwan in the Era of Phosphodiesterase Type 5 Inhibitors

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National Yang-Ming University, Taipei[2]

Objectives: Oral phosphodiesterase type 5 (PDE5) inhibitors, intracavernosal injection, and penile implants are mainstay treatments for erectile dysfunction (ED). We report utilization data and user characteristics for these modalities in Taiwan between 1999 and 2011. Usage data are important to guide health care expenditure and may help clinicians understand the market and consumer behavior and to identify influencing factors.

Materials and Methods: We collected sales data on the PDE5 inhibitors and medications of intracavernosal injection from Intercontinental Marketing Services Health. The data of penile implants was collected from the local importing company. Demographic and clinical data of patients were obtained retrospectively through medical chart review. The χ^2-test was used to compare categorical parameters and analysis of variance (ANOVA) was used to compare numeric parameters.

Results: Between 1999 and 2011, sales of PDE5 inhibitors increased 5.9-fold, whereas those of alprostadil and penile implants remained stable. Discontinuation of treatment with PDE5 inhibitors or intracavernosal injection reached 90% within 3 years of treatment initiation. The age of patients who first received PDE5 inhibitors for ED showed a tendency to decrease over consecutive years, with a mean age of 65.1 years in 1999 and 53.7 years in 2011.

Conclusions: The increasing market for PDE5 inhibitors reflects both their global acceptance as the primary treatment for ED and the growing burden of ED. The mean age of patients who first receive treatment with PDE5 inhibitors has decreased over consecutive years, reflecting increased public awareness and recognition of the advantages of PDE5 inhibitors.

ED-5

嚼食檳榔與勃起功能障礙風險

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Association of Catechu Nut Chewing with Risk of Erectile Dysfunction

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School of Medicine, National Yang-Ming University

Objectives: Catechu nut chewing is a common habit in Taiwan and is reported to increase the risk for oral malignancy and diabetes and metabolic syndrome. Our study was the first study to investigate the association between catechu nut chewing and the risk of erectile dysfunction (ED).

Methods and Materials: Male subjects with age between 40 to 70 years were screened for the habit of catechu nut chewing when they visited the Provincial Public Health Centers for a routine physical checkup from 2010 to 2011 in Taiwan. Erectile function was assessed by the Sexual Health Inventory for Men (SHIM).

Results: A total of 1581 subjects completed the study with data eligible for analysis. Among the 1581 subjects, 712 (45.0%) reported a history of catechu nut chewing and 869 (55.0%) subjects did not who served as the control group. Subjects who reported a history of catechu nut chewing were younger in age, had a higher body mass index, were associated with a higher frequency of smoking and drinking, and had a higher prevalence of DM and hypertension ($p < 0.05$). ED was reported in 62.4% (444/712) of subjects with a history of catechu nut chewing, significantly higher than that in 51.4% (447/869) of controls ($p < 0.001$). Subjects who had chewed catechu nut for > 3 yrs reported a higher prevalence of ED (65.8% [373/567]) than those for ≤ 3 yrs (51.5% [34/66]) ($p = 0.022$). In the receiver operating characteristic (ROC) curve, the risk of ED significantly increased when cumulative exposure of catechu nut chewing reached 27.5 ($p = 0.001$) Subjects with a history of catechu nut chewing had an increased risk for ED (OR = 1.72; 95% CI: 1.36–2.18), diabetes mellitus (OR = 1.60; 95% CI: 1.10–2.33), hypertension (OR = 1.46; 95% CI: 1.12–1.89) and obesity (OR = 1.31; 95% CI: 1.00–1.71), after adjustment for age, smoking and drinking habit ($p < 0.05$).

Conclusion: Our results showed that catechu nut chewing is an independent risk factor for ED, diabetes mellitus, hypertension and obesity with a dose-dependent effect.

ED-6

勃起功能障礙患者繼發心血管疾病與死亡原因

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Subsequent Cardiovascular Diseases and Mortality in Men Presenting with Erectile Dysfunction

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Objectives: Erectile dysfunction (ED) is seen as a precursor of cardiovascular diseases (CVD). The aim of this study was to investigate the incidence of CVD in men presenting with ED and their cause of mortality.

Methods and Materials: Consecutive patients who presented with ED and did not have CVD from 1999 to 2011 were enrolled into the study. A telephone structured interview by a trained nurse was conducted to collect the information. Besides, chart review was done for all participants. The Institutional Review Board at our institution reviewed and approved the study protocol.

Results: From 1999 to 2011, a total of 4713 patients presented with ED at our institution. Of 4713 patients, 7.4% (347) had CVD with a mean age of 66.1 yrs and 92.6% (4366) did not have CVD with a mean age of 58.4 ± 14.1 years. Response rate of telephone interview was 43.0% (1475/3427). After excluding subjects with an age <40 years (N = 484) and who did not have any follow-up visit or could not reach by interview (N = 409), a total of 3473 subjects' data eligible for analysis who had a mean age of 62.2 ± 11.2 years (40-91) and a mean follow-up of 82.5 ± 51.8 months (1-173). Of 3473 subjects, 9.1% (316) developed with subsequent CVD with an incidence of 3.3%, 7.3%, 10.3% and 12.4% for the age group of 40-49, 50-59, 60-69, and ≧70 age group, respectively. The ED-CAD temporal relationship was 58.7 ± 36.4 months (1-170). Independent risk factors for CAD in ED patients include age, diabetes, hypertension and dyslipidemia. Of the 3801 subjects, 7.7% (293) expired and the major causes of mortality in ED patients were malignancy (2.7%), infection (1.5%) and CVD (1.0%).

Conclusion: Of the cohort, the incidence of subsequent CVD in men with ED was 9.1% with an interval of 58.7 months. The independent risk factors for developing CVD in men with ED include an older age, DM, hypertension and dyslipidemia. Malignancy, infection and CVD constitute the main cause of mortality in men with ED.

ED-7

西羅多幸對有下泌尿道症狀之男性的性功能的作用

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Effects of Silodosin on Sexual Function in Men with LUTS: A Preliminary Report

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New Taipei, Taiwan, and Department of Urology[2], School of Medicine,
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Purpose: To report the effects of silodosin on sexual function in men with both lower urinary tract symptoms (LUTS) and sexual dysfunction.

Materials and Methods: In 2 years, 50 sexually active men with LUTS and sexual dysfunction were treated with silodosin 4mg per day. Erectile function was assessed by International Index of Erectile Function (IIEF) and classified as mild to moderate (IIEF 16-21) and severe (IIEF≦15) erectile dysfunction. Ejaculation status is classified as no ejaculation, reduced semen volume and normal ejaculation. Self-reported intra-vaginal ejaculation latency time (IELT) is classified as: grade 1 (≦1minute), grade 2 (≦2minutes), grade 3 (≦5minutes), grade 4 (≦10 minutes), grade 5 (≦30 minutes) and grade 6 (>30 minutes). Premature ejaculation (PE) is arbitrarily defined as self-reported IELT≦2minutes. Men had previous operation for the prostate were excluded.

Results: Anejaculation was observed in 26 (52.0%) men and reduced semen volume in 23 (46.0%), and normal ejaculation in one (2.0%). Mean age of the 38 men without PE and 12 men with PE were 58.7 and 56.1 years, respectively. Of the 38 men without PE, there was statistically increase of IIEF [Median: 14 (95% CI: 13～ 17) vs. Median 16 (95% CI: 14～ 19) P=0.0069)], but not IELT. Of the 12 men with PE, there were statistically improved in both IELT [Median: 2 (95% CI: 1～ 2) vs. Median 2 (95% CI: 2～ 4) P: 0.0156] and IIEF [Median: 14 (95% CI: 8～ 21) vs. Median 20 (95% CI: 11.09～ 22.45), P: 0.042]

Conclusion: Though silodosin affected ejaculation status in 98% of the patients, self reported IELT was prolonged in men with premature ejaculation. In addition, silodosin improved erectile function in all men with or without premature ejaculation. Further larger scale study is required to confirm our preliminary observation.

ED-8

陰莖海綿體內注射血管內皮前驅細胞可改善海綿體神經受損小鼠的勃起功能

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[1]耕莘醫院泌尿科 [2]輔仁大學基礎醫學研究所 [3]台大醫院泌尿部

Intracavernous Injections of Endothelial Progenitor Cells to Restore Erectile Function in Bilateral Cavernous Nerve Injury Rats

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[2]Graduate Institute of Basic Medicine, College of Medicine, Fu Jen Catholic University
[3]Department of Urology, National Taiwan University Hospital

Objectives: Surgical therapies for prostate cancer and other pelvic malignancies often result in neuronal damage and debilitating loss of sexual function due to cavernous nerve trauma. Despite advances in surgical technique, neurogenic erectile dysfunction (ED) following radical prostatectomy (RP) remains a major concern. Endothelial progenitor cells (EPCs) are bone marrow-derived cells required for endothelial repair and able to differentiate into mature endothelial cells and participate in blood vessel formation. However, the effects of EPCs injection in protection of corpus cavernosum after bilateral cavernous nerve (CN) injury have never been investigated. We investigated the effect of EPCs into the corpus carvernosum of rats with neurogenic ED.

Materials and Methods: Male Spraque-Dawley rats were randomly divided into three groups: Group I underwent sham operation, while the remaining two groups underwent bilateral CN crush. Crush-injury groups were treated at the time of injury with an application of EPCs or normal saline only injection in corpus carvernosum, respectively. Four weeks later, erectile function was assessed by CN electrosimulation, and CNs as well as penile tissue were collected for histology.

Results: Four weeks after surgery, in the vehicle only group, the all functional evaluation index (including intracavernous pressure, area under curve (AUC) and the ration of ICP/ mean arterial pressure (MAP)) showed a lower mean than those in the sham group ($P<0.001$). EPC treatment group showed erectile function recovery significantly as compared with vehicle only group ($P<0.001$). Immunofluorescence examination for both neurofilament-1 and neuronal nitric oxide synthases (nNOS) in dorsal penile nerve revealed no significant difference between vehicle only and EPC treatment group. However, content of smooth muscle cell in corpus cavernosum tissue was significantly increased in EPCs treatment group compared with vehicle only group ($P<0.01$).

Conclusions: Based on the results of this study, we conclude that application of EPCs into the corpus cavernosum restores erectile function via preservation of smooth muscle cells in corpus cavernosum after CN injury.

ED-9

Tadalafil 在雙側神經保留根除性攝護腺切除手術後對於勃起功能恢復之效果

葉如芬
禮來股份有限公司 醫藥學術部

Effects of Tadalafil Treatment on Erectile Function Recovery Post Bilateral Nerve-Sparing Radical Prostatectomy

Ju-Fen Yeh (presenter only)[1], Jens-Uwe Stolzenburg[2], Francesco Montorsi[3], Gerald Brock[4], John Mulhall[5], Ignacio Moncada[6], Hiten Patel[7], Daniel Chevallier[8], Kazimierz Krajka[9], Carsten Henneges[10], Ruth Dickson[11], Hartwig Büttner[10]
[1]Presenting on behalf of Eli Lilly and Company, Indianapolis IN [2]Universitätsklinikum Leipzig, Leipzig, Germany; [3]University of Western Ontario, London, Canada; [4]Instituto Scientifico Universitario San Raffaele, Milan, Italy; [5]Memorial Sloan-Kettering Cancer Center, New York, USA; [6]Hospital La Zarzuela, Madrid, Spain; [7]University Hospital North Norway, Tromso, Norway; [8]Hôpital Universitaire Archet 2, Nice, France; [9]Uniwersyteckie Centrum Kliniczne, Gdansk, Poland; [10]Lilly Deutschland GmbH, Bad Homburg, Germany; [11]Lilly Canada Inc, Toronto, Canada

Introduction and Objective: The possible rehabilitative impact of Tadalafil (TAD) following nerve-sparing prostatectomy (nsRP) on penile function remains unclear. This multicenter, randomized, double-blind, double-dummy, placebo (PLC)-controlled trial (NCT01026818) primarily assessed the proportion of patients (pts) achieving an International Index of Erectile Function Domain score (IIEF-EF) ≥22 after 6 weeks (w) washout. Secondary measures included IIEF-EF, Sexual Encounter Profile question 3 (SEP3) and penile length (PL).

Methods: Pts ≤68 years (y) with adenocarcinoma of the prostate (Gleason ≤7) and normal preoperative EF were randomized 1:1:1 to either a 9-month (m) treatment of TAD 5mg once a day (OaD), TAD 20mg on demand (pro re nata, PRN) or PLC post nsRP, followed by a 6w washout phase and a 3m open-label phase on TAD OaD (all pts). Logistic regression and ANCOVA adjusting for treatment, age and country were applied to IIEF-EF ≥22, SEP3 and PL.

Results: 423 pts were randomized to TAD OaD (N=139), TAD PRN (N=143) and PLC (N=141). Mean (SD) age was 57.9 (5.58) y, 44.7% had open surgery. 20.9% of pts in the TAD OaD, 16.9% in the TAD PRN and 19.1% in the PLC arm reached an IIEF-EF ≥22; odds ratios (95%CI) for TAD OaD and TAD PRN vs PLC were 1.14 (0.63, 2.06; p=0.675) and 0.89 (0.48, 1.65; p=0.704). SEP3 improved to 34.5% vs 21.1% during the double-blind phase and decreased during washout to 30.1% vs 32.0%, but further improved to 54.1% vs 37.9% during open-label treatment in pts randomized to the TAD OaD arm vs PLC. IIEF-EF improved to 15.2 vs 11.6 during the double-blind phase and decreased during washout to 13.6 vs 12.6, but further improved to 18.1 vs 15.7 during open-label treatment in pts randomized to the TAD OaD arm vs PLC. PL reduction after the double-blind phase was significantly lower vs PLC in the TAD OaD arm only (LS mean; 95%CI: 4.20; 0.47, 7.93; p=0.028). Treatments were well tolerated with no unexpected safety signals.

Conclusions: Improvements in EF gained during 9m of active treatment with TAD were not maintained after a 6w washout. However, TAD OaD given early after nsRP suggests advantages versus delayed treatment in responsiveness to treatment and in protecting from structural penile impairment post nsRP.

Disclosure: This study was supported and conducted by Eli Lilly & Company, Indianapolis, IN, USA. This presentation is an encore of a poster presented at ISSM (International Society for Sexual Medicine); 2013 International Congress, 21 – 23 June, 2013, Berlin, Germany (http://www.issmessm2013.org/site/)

P-1

經直腸攝護腺切片術後的預防性抗生素使用–彰化基督教醫院 2008 到 2012 年 583 位病人的經驗分享

陳柏華 張進寶 王百孚 林介山 嚴孟意 江恆杰 黃勝賢 陳俊吉
黃國軒 石宏仁 張建祥
彰化基督教醫院 外科部 泌尿科

The Use of Prophylactic Antibiotics for Prostate Biopsy – A 5 years Changhua Christian Hospital Clinical Experiences of 583 Patients

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Purpose: In recent studies, the rate of infection after prostate biopsy causing UTI ranges from 3 to 11% and resulting in sepsis ranges from 0.3 to 5%. In a large retrospective study in Canada, patients with post-biopsy related infection showed increased resistance to fluroquinolone. Due to differences in antibiotics protocol, we analyzed complication rate and risk factors in post prostate biopsy patients.

Materials and Methods: In a retrospective study, a total of 583 biopsies were done from January 1st, 2008 to December 31st, 2012. All patients received one dose of 80 mg Gentamycin via IM before prostate biopsy. Before draping the patients, beta-iodine solution was used for rectal cleaning. Biopsy-related complications were defined as any discomfort (fever, hematuria, hematochezia, etc) the patient experiences within 7 days after biopsy.

Result: Of the 583 patients, 20 patients (3.4%) experienced symptomatic UTI. Patients with symptomatic UTI, 6 patients (1%) required hospitalization stay but none needed ICU stay. Most common isolated organism is E. Coli with high sensitivity to cephalosporin and fluroquinolone. High risk factors include: hypertension, diabetes, prostatic volume > 45 cm^3, Age> 80 y/o, biopsy cores, repeated biopsy, recent hospitalization.

Conclusion and discussion: Our results and complications were similar to other reported literature. Since this is a retrospective study and comprised of all attending doctors' patients, we lack a control group and standardized procedure for all patients which can be corrected in future prospective study.

P-2

經尿道攝護腺刮除術後急性尿滯留之顯著相關因子

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Significant Correlative Factors for Acute Urinary Retention after Transurethral Resection of Prostate - A Nation-wide Database Study

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Objectives: For patients with bladder outlet obstruction, transurethral resection of prostate (TURP) is the acceptable procedure to relieve lower urinary tract symptoms (LUTS). Due to aging population in Taiwan, the incidence and prevalence rate of prostatic disease has been increasing. Among all the complications after TURP, acute urinary retention (AUR) is the most bothersome. Therefore, factors correlated with AUR after TURP has always been a concern. This article is aimed to analyze AUR after TURP in Taiwan according to the claims of the National Health Insurance (NHI) program.

Materials and Methods: From the NHI Research Database of Taiwan, we applied for the all the claims of patients who ever visited urology clinic during 2006 to 2010. In this urology profile, we received all the records of both admission (DO and DD files) and ambulatory clinics (OO and CD files). Codes for three levels of TURP (≧5~15g, ≧15~50g, ≧50g) were used for the definition of TURP. Those who received TURP < 5g were excluded because the purpose of TUR biopsy may not be necessarily for relief of bladder outlet obstruction, such as prostate cancer diagnosis. AUR was defined as mandatory for any kind of indwelling catheterization. Episodes of AUR after TURP within 2 weeks to 2 months were all examined. Foley catheter indwelled on the same day of TURP was excluded. Patients older than 40 years old were included. Patients who received transurethral incision of bladder neck or bladder neck incision or optic or otis urethrotomy within 1 year before TURP and 2 months after TURP were excluded, as well as those who had TURPs within 2 months between each surgery or long admission period after TURP. Patients who had diagnosis of prostate or bladder cancer within 3 months peri-operatively were excluded. ICD-9 codes for diabetes mellitus (DM), cerebral vascular disease (CVA), spinal stenosis (SS), and herniated intervertebral disc (HIVD) were adopted for disease confirmation only when the diagnoses from DD or CD files existed at least one year before TURP. Descriptive and comparative analyses were performed.

Results: In this urology profile, there were 32041 TURPs performed. The hospitalization days for TURP mainly ranged from 3 to 5 days. As time goes by after TURP without AUR episodes, the chance to get AUR became less and less within 2 months, mainly within 2 weeks after TURP. The following findings were all similar from within 2 weeks to 2 months after TURP, so we focused on the period of 2 weeks after TURP. The mean age was 72.45. If we divided them into three groups according to the resection weight of prostate (group A: ≧5~15g, group B: ≧15~50g, and group C: ≧50g), the number of TURPs were 12879 (40.2%), 16345 (51.0%), and 2817 (8.8%), respectively, and the mean age of each group was 72.06, 72.56, and 73.53, with significant difference (P<0.001). Among TURPs included, 2543 of them were associated with AUR (7.94%). The rate of AUR after TURP in each group was 9.05%, 7.49 %, and 5.40%. The difference between all these three groups were significant (P<0.001), with the odds ratio of 1.27 (A to B) and 1.89 (A to C). Age is also a significant predictor of AUR after TURP, with odd ratio of 1.024 (P<0.001). Patient who had previous AUR episodes within 2 months before TURP have higher post-TURP AUR rate (9.46%) than those without AUR before TURP (7.04%), with odds ratio of 1.352 (P<0.001). About co-morbidities, DM and CVA were significant risk factors for AUR after TURP, with odds ratio of 1.107 (P=0.047) and 1.241 (P<0.001) respectively, while SS and HIVD were not significant (P=0.212 and 0.277 respectively).

Conclusion: By the NHI database, we may take a glance of AUR after TURP in Taiwan. The mean age was significantly older for the heavier resection weight group of TURP. The most AUR occurred within the group A (TURP ≧5~15g), followed by group B (≧15~50g), and group C (≧50g). The differences between them were all significant, no matter within 2 weeks or 2 months after TURP, though mainly the former. This probably indicated that AUR after TURP was related to the resection weight of prostate, or there may be some reasons for AUR other than bladder outlet obstruction in patients receiving TURP with smaller prostate. Besides, age, AUR before TURP, DM, and CVA were also significant predictors for post TURP AUR possibility, while SS and HIVD were not.

P-3

男性膀胱過動症病人之主觀症狀嚴重度與尿路動力學檢查及影像參數之相關性

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Correlation between Subjective Symptom Severity and Objective Urodynamic Study and Image Parameter in Male OAB

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Propose: The aim of this study was to investigate the correlation between the subjective symptom score and urodynamic study and image parameter in male overactive bladder (OAB) patients.

Materials and methods: We prospected recruited male OAB patients from our outpatient department from January 2008 to June 2012. A total 122 male OAB patients were enrolled. We used the total International Prostate Symptom Score (IPSS-T), voiding sub-score (IPSS-V), storage sub-score (IPSS-S), storage/voiding sub-score ratio (IPSS-S/V ratio) and overactive bladder symptom score (OABSS) to quantify subjective symptom severity. Urodynamic study including catheter-free uroflowmetry and cystometry (CMG) were performed in each patient and maximal flow rate (Q max), mean flow rate (Q mean), CMG capacity, post-voiding residual urine (PVR), detrusor pressure at maximal flow (P det at Q max) were recorded. All patients received trans-abdominal ultrasound which provided the information of intravesical prostatic protrusion (IPP), prostate volume (PV) and detrusor wall thickness.

Results: The mean age of 122 patients were 72 ± 13 years old. The mean IPSS-T, IPSS-V, IPSS-S, IPSS-S/V ratio and OABSS were 16.8 ±7.3, 7.2 ±4.8, 9.7 ±3.4, 3.2 ±3.7 and 9.8 ±3.1 respectively. IPSS-T score was correlated with Q max, Q mean and PSA value (r= - 0.286, -0.329, 0.233 and p-value=0.001, <0.001, 0.015 respectively). IPSS-V sub-score was correlated with Q max and Q mean (r= - 0.238, -0.302 and p-value=0.008, 0.001, respectively). IPSS-S was correlated with CMG capacity, PVR, Q max, Q mean, PSA value and IPP (r= - 0.195, 0.178, -0.246, -0.277, 0.255, 0.195 and p-value=0.032, 0.049, 0.006, 0.012, 0.008, 0.031, respectively). IPSS-S/V ratio was correlated with CMG capacity and Q mean (r= -0.237, 0.190 and p-value = 0.008, 0.036 respectively). OABSS was correlated with CMG capacity, Q max and IPP (r= - 0.259, -0.185, 0.185 and p-value=0.004, 0.041, 0.041, respectively). There was no correlation between these scores and P det at Q max, AG number, prostate volume, detrusor wall thickness.

Conclusion: In male OAB patients, subjective symptom scores are negatively correlated with urinary flow rate. However, only IPSS storage sub-score and OABSS are correlated with CMG capacity and intravesical prostatic protruding.

P-4

雷射經尿道攝護腺刮除手術之併發症

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Complications of Transurethral Resection of Prostate with Laser: Results at Two Institutions

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Objective: Benign prostate hyperplasia (BPH) is a common disease with bothersome symptoms. Conventional transurethral resection of prostate (TURP) is the gold standard surgical treatment. Recently, minimally invasive therapy for BPH with laser was adopted worldwide. Here, we shared the experience of laser TURP in Mackay Memorial Hospital.

Materials and Methods: We performed a retrospective analysis through chart review among patients who had undergone laser TURP in two tertiary referral centers between January, 2009 and December, 2012. The exclusion criteria were prostate volume smaller than 20 ml, severe coagulopathy and prostate adenocarcinoma. We did not exclude our first year experience of laser TURP or concurrent surgeries. The primary outcome was perioperative and postoperative complications and secondary outcome was duration of hospital stay and catheterization. We performed enucleation of prostate with laser and used morcellator to remove prostate adenoma except KTP laser. We used the Clavien-Dindo Classification of surgical complication to categorized surgical complications. The mean age of study group was 72.3 years old (range 51 to 93). Their mean prostate volume was 63.6 ml (range 22 to 270). Fifty-nine (20.3%) patients had prostate volume larger than 80 ml.

Results: Among the patients received laser TURP, no patients had grade 5 complications. There were grade 4a complications in three (1%), grade 3a in 12(4.1%), grade 2 in 16(5.5%) and grade 1 in 32(11.0%) patients, respectively. Four cases had treatment failure and received conventional TURP in one week. Their prostate volume was 51, 183,166 and 193 ml, respectively. Patients whose prostate volume was larger than 80 ml were not significantly related to higher complication rate. The average hospital stay and duration of catheterization were 3.07 and 2.46 days.

Conclusions: Laser TURP was a safe treatment with low complication rate even for large prostate.

P-5

陰道滴蟲感染在非攝護腺癌但高攝護腺特異抗原病人中所扮演的角色：初步報告

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Role of Trichomoniasis Infection in Patients with High PSA Level but with Negative of Malignancy: A Preliminary Report

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Purpose: Patients with high PSA level but with negative of malignancy are common to be found in urological clinic. Although the etiologies are variable in different conditions, bacterial or nonbacterial prostatitis was thought to account for some of the diagnoses. This study is designed to survey if trichomoniasis infection is as a cause of nonbacterial prostatitis in these patients.

Materials and Methods: Between 29 January 2013 and 12 April 2013, 20 patients who ever received prostate biopsy due to high PSA level but without malignancy were enrolled in this study. All patients received urine or semen trichomonas vaginalis (TV) rapid test kid examination (JD's TV Ag Test kid) for infection confirmation. One patient sent semen for the test and another 19 patients sent post prostatic massage first-void urine for the examination. The prevalent rate of TV infection in these patients was studied. The treatment results with metronidazole included post therapy PSA level change and TV Ag follow-up 3 months later were evaluated too.

Results: The prevalent rate of trichomoniasis infection in patients with high PSA level but with negative malignancy was 30% (6/20) with the rapid test kid of TV. All 6 cases were found to have TV infection only in their post prostatic massage first-void urine. No any TV trophozoite was found in the direct smear under microscope in all 20 patients. After 4 weeks metronidazole treatment, TV antigen change to negative in 5 of 6 patients. PSA level decreased significantly was observable in 2 of 6 patients.

Conclusion: The infection rate of trichomoniasis is high in patients with high PSA level but without malignancy and the results account that nonbacterial prostatitis may be a causative etiology. The rapid test kid of TV is a suitable tool as a first line survey for these patients. The treatment result was encourage for the clinicians and provided benefit for the patients who concerned about their high PSA level.

P-6

陰道滴蟲感染在慢性攝護腺炎/慢性骨盤腔疼痛症候群病人中所扮演的角色：初步報告

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Role of Trichomoniasis Infection in Patients with Chronic Prostatitis / Chronic Pelvic Pain Syndrome: A Preliminary Report

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Purpose: Chronic nonbacterial prostatitis or chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is a pelvic pain condition in men and is a common consultation in urological clinic. Until nowadays, CP/CPPS is difficult to treat due to the etiologies are poorly understood, even though it accounts for 90%-95% of prostatitis diagnoses. This study is designed to discover if trichomoniasis infection is one of the causes in patients suffering from CP/CPPS.

Materials and Methods: Between 29 January 2013 and 12 April 2013, 35 patients who were diagnosed of CP/CPPS without associate underlying diseases that can be explained for these conditions were included. All patients received urine trichomonas vaginalis (TV) rapid test kid examination (JD's TV Ag Test kid) for infection confirmation. 5 patients sent self-void urine for the test and another 30 patients sent post prostatic massage first-void urine for the examination. The prevalent rate of TV infection in patients with CP/CPPS and the treatment results with metronidazole were evaluated (NIH-CPSI-subscales addressing pain and recheck the TV Ag about 2 to 3 months later after treatment).

Results: The prevalent rate of trichomoniasis infection in patients with CP/CPPS was 20% (7/35) with the rapid test kid of TV. One case was found to have TV infection in his self-void urine and 6 cases were found to have TV infection in their post prostatic massage first-void urine. No any TV trophozoite was found in the direct smear under microscope in all 35 patients. Significant treatment response was found in 6 of 7 patients (effect rate: 86%) (Pre-treatment mean score: 15.3; Post-treatment mean score: 4.2; $p<0.001$) according to the NIH-CPSI-subscales addressing pain (score range 0–21). After 4 to 8 weeks (4 patients) metronidazole treatment, TV Ag change to negative in 5 of 6 above patients who felt improved a lot of their symptoms post-treatment.

Conclusion: The infection rate of trichomoniasis is high in patients with CP/CPPS and the rapid test kid of TV is a suitable tool as a first line survey for these patients. The treatment result was encourage for the clinicians and provided benefit for the patients.

P-7

原發性睪丸淋巴瘤—台北榮總之臨床經驗報告

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Primary Testicular Lymphoma – Clinical Experience of Taipei Veteran General Hospital

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Objectives: Primary testicular non-Hodgkin lymphoma (PTL) is a rare tumor and represents only 1% to 2% of all cases of lymphoma. 85% of cases occur in men older than age 60 and PTL is the most common testicular neoplasm in men older than age 50. Although PTL is rare, the behavior of PTL is very aggressive, resulting in a poor outcome. We retrospectively reviewed patients with PTL in our hospital after 1990, and investigated all the factors and treatment outcome.

Materials and Methods: Of all patients with primary testicular lymphoma, diagnosed or confirmed histopathologically at Taipei Veteran General Hospital after 1990, were retrospectively reviewed. We analyzed the age, pathological staging, relapse, treatment, survival rate of testicular lymphoma.

Results: From January 1990 to September 2013, there were 27 patients with primary testicular lymphoma, diagnosed and treated at Taipei Veteran General Hospital. Mean patient age at diagnosis was 64.0 years (range 10 to 84) old, and mean follow-up duration was 49.7 months (range 2.0 to 184.7) with the five year survival rate was 22.2 %, ten year survival rate 18.5%. Mean tumor volume was 64.8 ml (range 0.5 to 221). Lesion located at right testis in 12 patients (44.4 %), left side in 12 (44.4 %), and bilateral testes in 3 (11.1 %). Histopathological cell type of testicular lymphoma were classified into 22 diffuse large B cell type (DLBCL, 81.5%), 2 T cell type (7.4%), 2 Burkitt's lymphoma (7.4%) and 1 non-specific type (3.7%), respectively. Initial pathological Ann-Arbor staging showed 15 patients in stage Ie (55.6%), 2 in stage II (7.4%), 1 in stage III (3.7%), 9 in stage IV (33.3%). Under Kaplan-Meier survival analysis, patients with DLBCL did not show a better survival compared with non-DLBCL patients. ($p=0.55$). Patients with advanced Ann-Arbor stage (stage III/IV) have poorer prognosis for survival ($p=0.02$). 7 patients who were treated after 2002 with chemotherapy regimen containing rituximab, did not show a better survival currently ($p=0.88$).

Conclusions: The major pathology of PTL was diffuse large B cell lymphoma and the overall prognosis of PTL was poor. Radical orchiectomy followed by adjuvant chemotherapy was still the mainstream of treatment. Rituximab was added in the regimen of chemotherapy after 2002 in Taiwan, but the introduction of rituximab in clinical practice does not seem to improve the survival of PTL currently.

I-1

胚胎發育期雄性生殖細胞存活之機轉

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Mechanism of Male Germ Vell Survival during Embryonic Development

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Objectives: Because fetal arterial pO2 ranges from ~20 to ~30 mmHg, the fetal embryogenesis exists in a state of relative hypoxia. In addition, because of the vascular arrangement, the oxygen concentration within adluminal compartment of seminiferous tubule is very low. Therefore, the male germ cells shows a remarkable ability to develop under hypoxic condition. The most common intracellular regulator responsible for the oxygen homeostasis is hypoxia-inducible factor-1α (HIF-1α). Under hypoxic condition, the accumulation of HIF-1α in nucleus and the induction of HIF-1α target genes are essential for survival of germ cells. This study was conducted to explore the mechanism by which HIF-1α regulate the survival of male germline in murine gonadogenesis.

Materials and Methods: Genes that contain hypoxia response element (HRE) binding sites in the promoter regions and are expressed in the testes of mouse and humans were searched *in silico*. The mRNA expressions and protein expressions of HIF-1α and HIF-1α-target gene in the mouse testes of embryonic day 12.5 (E12.5)、E14.5、 E16.5、E18.5 and postnatal day 0.5 (P0.5) were studied by RT-PCR and immunofluorescence staining, respectively. The effects of hypoxia on the target genes were determined at both RNA and protein levels. The interaction between HIF-1α and target gene were studied by knockdown and overexpression assays.

Results: By bioinformatics, Miwi2 was identified as putative target of HIF-1α in the testes of both mouse and humans. RT-PCR and immunofluorescence staining demonstrated that HIF-1α protein and Miwi2 proteins were co-localized at the cytoplasm of gonocyte and prespermatogonia of E12.5 ~E18.5 and spermatogonia of P0.5 mouse testes. Miwi2 was found to be significantly up-regulated by hypoxia. Silencing of HIF-1α attenuated the Miwi2 expression under hypoxia, whereas overexpression of HIF-1α increased Miwi2 expression under normoxia, suggesting that the regulation of Miwi2 expression by hypoxia is mediated by HIF-1α.

Conclusions: Because Miwi2 has been shown to be essential for the retrotransposon silencing in male germline, upregulation of Miwi2 by HIF-1α is an important mechanism for the maintenance of germ cell survival during embryonic gonadogenesis in mammalians.

I-2

建立一個男性生殖老化動物模式

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Establish An Male Reproductive Aging Model

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Background: The D-galactose (D-gal)-induced animal model, which is established by consecutive subcutaneous d-gal injections for approximately 6-8weeks, has been frequently used for aging research. This animal model has been shown to accelerate aging of the brain, kidneys, liver, and blood cells. However, aging of the male reproductive organs in this animal model has not been reported.

Materials and Methods: The aim of this study was to investigate changes in the male sperm and testis in the D-gal-induced aging mouse model.

Results: First, we detected injection d-gal decrease sperm count , increase abnormal morphology and immotile sperm. Second, the D-gal exposure also induced an increase oxidative stress in peripheral and testis, including an increase in malondialdehyde (MDA), a decrease in total superoxide dismutase (SOD) activities. Third, the expression of *speer2，usp8，dnajc2，dnajb11and dnajc21* genes were significantly elevated after D-gal injection. Flowing findings suggest that D-gal exposure induces male sperm abnormal by enhancing oxidative stress and increase spermatogenesis and ubiqitin-related genes.

Conclusion: These results indicate that D-gal-treated mice are suitable for research male reproductive aging model.

I-3

MAEL 基因啟動子上的 29 個 CpG 位點在人類造精功能的表遺傳調控扮演重要角色

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29 CpG Sites in MAEL Promoter Region are Crucial for Epigenetic Regulating Mechanism of Human Spermatogenesis

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Objective: More and more evidences indicate the important roles of epigenetic regulation in spermatogenesis. Our previous methylation array analysis revealed MAEL is one of the candidate genes potentially responsible for epigenetic control. MAEL has been shown to play an important role in the piRNA-mediated defense mechanism of the mammalian germline from retrotransposons , hypermethylation of MAEL should contribute to one of the causes of male infertility. This study was conducted to compare the methylation status of the MAEL promoter region between normal spermatogenesis and hypospermatogenesis.

Materials and Methods: The cluster of CpGs in the promoter region of MAEL gene was determined by the comparison of high throughput Methylated-DNA IP-on-chip (mDIP) assay between the testicular tissues of normal spermatogenesis and hypospermatogenesis. The amplified fragment in the promoter region (-456 to +28) of the MAEL gene was sequenced by using five pairs of primers to analyze a total of 33 CpG sites. The methylation status of each CpG was determined by pyrosequencing analysis after bisulfate treatment and PCR. The degree of each methylation at each CpG position was determined by the ratio of C to T incorporated during pyrosequencing (percentage of DNA methylation). Furthermore, the transcript levels were determined by quantitative real-time RT-PCR. The correlation coefficients were calculated to determine the correlation between the percentage of methylation (% methylation) and transcript levels.

Results: The transcript levels of MAEL are significantly lower in group of patients with hypospermatogenesis ($P = 0.0429$). All 33 CpG positions show significantly higher % methylation in hypospermatogenesis group ($P<0.05$). Among this CpG cluster in promoter region, methylation status of 29 CpG sites are found significantly reverse correlation with MAEL transcript levels ($P<0.05$).

Conclusions: Our study provides evidence that cluster of CpGs in MAEL promoter region participates in the epigenetic regulating mechanism of human spermatogenesis.

I-4

鈉氫離子交換蛋白基因拷貝數變異與先天性輸精管缺損之相關性

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Copy Number Alteration of *Solute Carrier Family 9 Sodium/hydrogen Exchanger Isoform 3*, *SLC9A3*, is Associated with Susceptibility to Congenital Bilateral Absence of the Vas Deferens

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Objectives: *SLC9A3* gene interacts with the C-terminal PDZ motif of *CFTR* gene in PS120 cell had been reported in previous study. In additional, *CFTR* gene can increases the expression of *SLC9A3* mRNA in the luminal membrane of pancreatic duct. To explore the proposed association between copy number variations (CNVs) of the *SLC9A3* gene and the risk of congenital bilateral absence of vas deferens (CBAVD).

Materials and Methods: Seven azoospermia males were found to have absence of vas deferens. *CFTR* gene was screened by DNA sequencing. Genome-wide screening for genetic CNVs was conducted on seven individuals with CBAVD using array-based comparative genomic hybridization (array CGH). We used real time PCR to evaluate the expression of *SLC9A3* gene in CBAVD cases (n = 31) and fertile controls (n = 30). The correlation between the gene variant and absence of vas deferens was investigated in this study. The expression patterns of *SLC9A3* were also assessment by RT-PCR and immunofluoresence staining, respectively.

Results: Fifteen CNVs which showed both of double incidence and 2-fold decrease, including *SLC9A3*, SET, HSD3B7, GALNS, HSPC176, CBFA2T3, LILRA3, RDH13, EPS1, PPP1R, COL1, THC2177217, SLC1, ZNF157, and MAGED2 have been identified. One of those candidate genes, *SLC9A3*, is an ion channels and have been regulated by *CFTR*. Hunan reproduction related organs (such as testis, epididymis and vas deferens) also appeared to express high levels of *SLC9A3*. Later on we increased the patient number for checking by real time PCR. Subjects with a single copy loss of *SLC9A3* had a 29 % (9//31) increase in CBAVD compared to control subjects (0%; 0/32) ($p<0.001$).

Conclusions: Deletion of the *SLC9A3* gene was seemed associated with CBAVD in Taiwan. Further functional investigation of *SLC9A3* will provide us more information on understanding the molecular mechanism of CBAVD.

I-5

臺灣男性飲食攝取與精液品質之相關性探討

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Dietary Intake and Semen Quality in Taiwanese Men

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Purpose: The objective of this study is to evaluate the relationship between dietary intake depending on the questionnaire results and semen quality including sperm concentration, motility percentage, forward motility percentage and morphology percentage.

Materials and Methods: Diet was assessed via semi-quantitative food frequency questionnaire (FFQ) and men were asked to report how often, on average, they consumed specified amounts of each food, beverage and supplement included in the questionnaire during the previous month. We performed a prospective study between June 2012 and May 2013 at in a standard medical screening program run by a private firm (MJ Health Management Institution, Taipei, Taiwan). Four dependent semen parameters including sperm concentration, sperm motility percentage, forward sperm motility percentage and morphology percentage were recorded. Moreover we also compared the semen parameters with different food items depending on the questionnaire results.

Results: Data from 2036 men were analyzed using Pearson chi-square correlation to semen quality. Dietary items of dairy food intake, high-fat carbohydrate and sweetened beverages revealed highly significant correlated with prevalence of lower sperm concentration; high-fat carbohydrate was also related to poorer total sperm motility and less normal sperm morphology ($p<0.05$). According to the ANOVA results, the amount of dairy food intake, carbohydrate, high-fat carbohydrate and sweetened beverages were correlated with the sperm concentration; dairy food intake, meats, carbohydrate and high-fat carbohydrate were associated with normal sperm morphology. The amounts of total meats intake also affects the sperm forward activity and the sperm motility was only modified by the sweetened beverages ($p<0.05$)

Conclusion: Our findings support that a diet rich in dairy food, carbohydrate, high-fat carbohydrate, sweetened beverages were correlated to semen quality. Further research is needed to confirm these findings and extend these results to more populations.

I-6

探討臺灣男性族群肥胖與精液品質之相關聯性

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An Exploration of the Association between Obesity and Semen Quality among 2,036 Taiwanese Men

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Purpose: To evaluate semen quality including sperm concentration, motility percentage, forward motility percentage and morphology percentage, levels of markers of endocrine function from men grouped according to their anthropometric indexes including body mass index (BMI), waist circumference, hip circumference, waist-to-hip ratio (WHR) and body fat percentage. Besides we also analyzed the relationship between different dietary patterns depending on the questionnaire results and the semen parameters.

Materials and Methods: We performed a prospective study between June 2012 and May 2013 at in a standard medical screening program run by a private firm (MJ Health Management Institution, Taipei, Taiwan). Four dependent semen parameters including sperm concentration, sperm motility percentage, forward sperm motility percentage and morphology percentage were recorded. Besides we analyzed the relationship between obesity estimated with the anthropometric indexes & body-fat composition and semen quality. Moreover we also compared the semen parameters with different dietary pattern depending on the questionnaire results.

Results: All subjects were divided into quartile according to different anthropometric indexes and body-fat component. Data from 2036 men were analyzed using Pearson chi-square correlation to semen quality. Only the factor of age revealed highly significant correlated with sperm concentration, total and progressive motility ($p<0.005$; $p<0.001$). All anthropometric indexes including BMI, waist circumference, waist-hip ratio and body fat composition percentage showed no statistically significant correlation with semen quality.

Conclusion: Only age factor revealed a statistical correlation with sperm concentration, total and progressive motility. General and central obesity took an indeterminate role with semen quality.

I-7

熱休克上升調控微核糖核酸630及抑制史托立細胞增生

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Up Regulation of miR630 by Heat Shock Inhibit Sertoli Cell Proliferation *in vitro*

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Objectives: MicroRNAs (miRNAs) are short non-coding RNA molecules which play regulatory roles in repressing translation or cleaving RNA transcripts of downstream targets. Our previous study has demonstrated that up-regulation of miR630 by heat shock leads to decreased SOX30 expression in spermatogenesis. Since miR-630 and SOX30 have been shown to be expressed in the Sertoli cells, this study was conducted to explore the impact of miR630 on Sertoli cell proliferation and the expressions of immature as well as mature markers of Sertoli cell *in vitro*.

Materials and Methods: Human Sertoli cells were treated with different doses of miR-630 mimic, miR630 mimic plus inhibitor and miR630 inhibitor only, respectively, then the cells were subjected to cell proliferation assay by using a Cell Titer 96 AQueous One Solution Cell Proliferation Assay kit. HeLa and human Sertoli cells were cultured, and after the addition of miR-630 mimic and CellTiter 96 AQueous One Solution, the cell proliferation assay was read at 490 nm using Microplate ELISA reader. We then further investigated the effects of heat shock and miR-630 on the expressions of immature (cytokeratin 18 and M2A) or mature (SGP2, Laminin and p27Kip1) markers of Sertoli cell. The expressions of immature/mature Sertoli cell markers were determined by RT-PCR.

Results: miR-630 mimics treatment at both 20 nM and 40 nM for 96 hours significantly decreased cell proliferation. This effect could be partially recovered by the addition of miR-630 inhibitor. After heat shock and miR-630 mimic, the cytokeratin 18 was significantly decreased by heat shock at 24 hours. Whereas no significant difference was found in M2A, SGP2, Laminin and p27Kip1.

Conclusions: Upregulation of miR-630 by heat shock significantly inhibit Sertoli cell proliferation and immature Sertoli cell marker cytokeratin 18 expression, which may contribute to one of the causes of spermatogenic failure.

I-8

不孕症男性合併睪丸造精功能低下之臨床表徵及表觀基因調控

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Clinical Characteristics and Epigenetic Regulation in Infertile Men with Hypospermatogenesis

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Objective: To explore the clinical characteristics and epigenetic regulation of non-obstructive azoospermic men with hypospermatogenesis.

Materials and Methods: Infertile men with hypospermatogenesis undergoing testicular sperm retrieval and complete medical records were enrolled. Their medical history, physical examination findings, testicular volume, serum hormone parameters, genetic anomalies, sperm retrieval outcome and spermatogenic scores were retrospectively analyzed. A comparison of whole genome methylation array to gene expression microarray from the testicular samples of hypospermatogenesis versus normal controls was done.

Results: In a cohort of 85 non-obstructive azoospermic men with hypospermatogenesis, only 4.5% of patients had genetic anomaly. For the history of testicular insults, 22.3% of the patients experienced heat exposure, 22.3% had unilateral or bilateral varicocele, 13.6% had ductal obstruction, 9% had history of cryptorchidism, and 4.5% experienced epididymitis/orchitis. The overall success sperm retrieval rate was 95.5%. With the selecting strategy of choosing hypermethylated DNA status from mDIP assay, decreased transcript levels from gene expression microarray data and intensive literature review, a total of 14 candidate spermatogenesis-related genes whose expressions were potentially regulated by epigenetics were identified. Their putative hypermethylation loci in promoter regions were confirmed by pyrosequencing analysis. For BOLL gene (one of the 14 candidates), patients with promoter hypermethylation showed higher number of testicular insults, compared to patients with lower methylation status.

Conclusions: In addition to genetic anomaly, hypospermatogenesis may be due to several testicular insults, and hypermethylation of the spermatogenesis-related genes might contribute to one of the causes of the testicular phenotype.

I-9

於人類精子形成過程中 SEPT12 調控核膜的結構

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Dynamic Expression of SEPT12 Affects the Integration of Nuclear Envelope during Human Spermiogenesis

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Background: The septin gene belongs to a highly conserved family of polymerizing GTP-binding cytoskeletal proteins. SEPTs perform cytoskeletal remodeling, cell polarity, mitosis, and vesicle trafficking by interacting with various cytoskeletons. Our previous studies have indicated that *SEPTIN12*$^{+/+/+/-}$ chimeras with a *SEPTIN12* mutant allele were infertile. Spermatozoa from the vas deferens of chimeric mice indicated an abnormal sperm-head and -tail morphology, decreased sperm count, and immotile sperm. Mutations and genetic variants of *SEPTIN12* in infertility cases also caused oligozoospermia and teratozoospermia.

Materials and Methods: However, the biological roels of SEPT12 during spermiogenesis are still unclear. Yeast-two-hybrids, co-immunoprecipitation (co-IP), and co-staining were used in this study.

Results: First, we identified the SEPT12-interacted proteins via yeast-two-hybrids. One of twenty SEPT12-interacted proteins is SPAG4, sperm-associated antigen 4. SPAG4 belongs to SUN family and is a nuclear envelope protein. Second, SEPT12 are co-localized and interacted with SPAG4 and LAMIN during spermiogensis and male germ cell cell line. Third, the structure of nuclear envelop is specific dis-regulated by ectopic expression of SEPT12, excluding alerted expression of SEPT1, SEPT6, SEPT7 or SEPT11.

Conclusion: In this study, we identified a novel role of SEPT12 for regulated the structure of nuclear envelop during human spermiogenesis.

I-10

於精子頭部與尾部形成過程需要 SEPT12 與微管複合蛋白參與

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SEPT12-Microtubule Complexes are Required for Sperm Head and Tail Formation

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Background: The septin gene belongs to a highly conserved family of polymerizing GTP-binding cytoskeletal proteins. SEPTs perform cytoskeletal remodeling, cell polarity, mitosis, and vesicle trafficking by interacting with various cytoskeletons. Our previous studies have indicated that *SEPTIN12*$^{+/+/+/-}$ chimeras with a *SEPTIN12* mutant allele were infertile. Spermatozoa from the vas deferens of chimeric mice indicated an abnormal sperm morphology, decreased sperm count, and immotile sperm. Mutations and genetic variants of *SEPTIN12* in infertility cases also caused oligozoospermia and teratozoospermia.

Materials and Methods: We suggest that a loss of SEPT12 affects the biological function of microtublin functions and causes spermiogenesis defects. Co-immunoprecipitation (co-IP), shRNA, and *SEPTIN12*-transgenic mice were used in this study.

Results: In the cell model, SEPT12 interacts with α- and β-tubulins by co-immunoprecipitation (co-IP). To determine the precise localization and interactions between SEPT12 and α- and β-tubulins *in vivo*, we created *SEPTIN12*-transgene mice. We demonstrate how SEPT12 interacts and co-localizes with α- and β-tubulins during spermiogenesis in these mice. By using shRNA, the loss of *SEPT12* transcripts disrupts α- and β-tubulin organization. In addition, losing or decreasing SEPT12 disturbs the morphogenesis of sperm heads and the elongation of sperm tails, the steps of which are coordinated and constructed by α- and β-tubulins, in *SEPTIN12*$^{+/+/+/-}$ chimeras.

Conclusion: In this study, we discovered that the *SEPTIN*12-microtubule complexes are critical for sperm formation during spermiogenesis.

I-11

精索靜脈曲張結紮手術促進不孕症男性合併羅伯遜轉位之造精功能

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Induction of Spermatogenesis in an Infertile Man with Robertsonian Translocation after Varicocelectomy

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Objective: To describe a case of Robertsonian translocation in an infertile man with left varicocele.

Materials and Methods: A 44-year-old man presented to us with primary infertility for 5 years. Three separate semen analysis showed azoospermia and severe oligozoospermia (sperm concentration of 1.4 M/ml), respectively. Physical examination showed decreased testicular size and left varicocele, which were further confirmed by scrotal sonography. Serum hormonal profiles demonstrated elevated FSH level and normal LH, testosterone, prolactin and estradiol levels. Chromosomal karyotyping revealed 45, XY, rob (13; 14)(q10; q10). The patient underwent microsurgical subinguinal varicocelectomy, and semen analysis were followed at 6, 9, and 12 months post-operatively.

Results: The post-operative semen parameters were sperm concentration: 3M/ml, motility: 4%, abnormal morphology 40% at 6 months; sperm concentration: 7M/ml, motility: 54%, abnormal morphology 35% at 9 months; sperm concentration: 6M/ml, motility: 56%, abnormal morphology 42% at 12months.

Conclusions: Although it has been reported that varicocelectomy appears to have limited benefit for men with varicocele and genetic anomaly, our result suggest that repair of a coexisting varicocele might be considered in patients with Robertsonian translocation and oligozoospermia.

I-12

術中睪丸抹片對於非阻塞性無精症病患睪丸取精 – 單一精子卵質內顯微注射之應用

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The Application of Real-time Testicular Touch Print Smear in Testicular Sperm Extraction - IntraCytoplasmic Sperm Injection Treatment for Non-obstructive Azoospermia

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Purpose: To determine the accuracy of the real-time testicular touch print smear during testicular sperm extraction comparing pathological diagnosis

Materials and Methods: From 2007/2 to 2013/4, patients with non-obstructive azoospermia (NOA) underwent diagnostic micro-dissection testicular sperm extraction (Md-TESE) were enrolled. Indication for Md-TESE includes Sertoli cell-only (SCO), early maturation arrest (EMA), late maturation arrest (LMA) or hypospermatogenesis diagnosed by testis biopsy, abnormal karyotyping, or Y microdeletion. We compared the pathological diagnosis with intra-operative touch print smear (TPS) to evaluate the concordance. Those with no relevant touch print smear slide to compare with pathological diagnosis were excluded.

Results: Totally 151 NOA men were enrolled, among them, 105 were SCO or Leydig cell predominance, 27 with hypospermatogenesis, 13 men having maturation arrest (LMA in 4 and EMA in 9 patients), Spermatozoa was found in 6 patients but pathology showed Leydig cell only, hyalinization, MA and SCO. Spermatozoa was seen in 23 hypospermatogenesis patients (23/27=85.2%), whereas the other 4 patients presented EMA on touch print smear. Concordance of intra-operative TPS and pathological diagnosis for EMA was 100% (9/9) and 0% (0/4) for LMA, of which 3 EMA and 1 SCO were seen on TPS. TPS showed EMA in 16 patients, 4 (25%) were hypospermatogenesis, 9 (56.3%) were EMA and 3(18.8%) were LMA. The actual "hypospermatogenesis" patients accounted for 33 patients (including 27 pathological diagnosis and 6 diagnosed by TPS), diagnosis rate was 81.8% (27/33) by pathology, 87.9% (29/33) by TPS and 100% (33/33) by pathology + TPS.

Conclusion: The application of real-time touch print smear increases the diagnosis rate for hypospermatogenesis patients. In patients with EMA presented by TPS, 25% and 18.8% were later diagnosed as hypospermatogenesis and LMA.

O-1

阿爾法-交感神經阻斷劑對主要骨盆神經節刺激引起大白鼠儲精囊內壓增加之效果

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Effect of α – Adrenergic Blockers on Major Pelvic Ganglion Stimulation-Induced Seminal Vesical Pressure Increase in the Rat

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Objectives: α–adrenergic blocker is used to treat lower urinary tract symptoms associated with prostatic enlargement, and is reported to have a side effect of ejaculatory dysfunction. The objective of this study was to investigate the effect of α–adrenergic blockers on major pelvic ganglion stimulation-induced seminal vesical pressure increase in the rat.

Materials and Methods: Male Sprague-Dawley rats (300-350 g) anesthetized with zoletil and xylazine were used. A PE-50 tube was inserted into seminal vesicle to monitor seminal vesicle pressure (SVP) on a polygraph. Administration of 0.05 ml saline into seminal vesicle, electrical stimulation of major pelvic ganglion (7.5V, 20 Hz, 2 ms, 1 minute) 10 minutes later. Then administration of silodosin 40 μg/0.05 ml, doxazosin 50 μg/0.05 ml, and terazosin 50 μg/0.05 ml and tamsulosin 4 μg /0.05 ml followed by electrical stimulation of major pelvic ganglion (MPG), respectively. The amount of SVP increase was the difference between peak SVP and resting SVP. The SVP increase after silodosin, doxazosin, and terazosin administration were compared statistically by Wilcoxon signed ranks test. $p < 0.05$ was considered significant.

Results: Although there was less amount of SVP increase after electrical stimulation of MPG in the rats with seminal vesicle application of silodosin than those with seminal vesicle application of saline, the difference of SVP increase was not significant (51.7 ± 10.2 mmHg vs. 54.0 ± 9.1 mmHg, $p = 0.344$). There was also no significant difference of amount of SVP increase after electrical stimulation of MPG between the rats with seminal vesicle application of doxazosin and saline (47.7 ± 8.0 mmHg vs. 51.2 ± 5.5 mmHg, $p = 0.50$). Again, there was no significant difference of amount of SVP increase after electrical stimulation of MPG between the rats with seminal vesicle application of terazosin and saline (40.8 ± 4.9 mmHg vs. 48.0 ± 5.9 mmHg, $p = 0.168$).

Conclusions: The results of this study suggest that α–adrenergic blockers (silodosin, doxazosin and terazosin) may have a numerical less amount of SVP increase after electrical stimulation of MPG as compared with saline in the rat. However, it does not reach statistically significant.

O-2

睪丸內注射 Etanercept 對高泌乳素血症雄鼠在人類絨毛膜性腺激素誘發睪酮分泌之效應

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The Effects of Intratesticular Etanercept Administration on in vivo hCG-stimulated Testosterone Secretion in Hyperprolactinemic Male Rats

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Objectives: Hyperprolactinemia (hyperPRL) has detrimental influence on male reproductive functions. Testicular interstitial macrophages have been shown to suppress the normal testosterone (T) release from the Leydig cells under hyperPRL. Previous studies have shown that intra-testicular injection of anti-tumor necrosis factor α (TNF- α) antibody could slightly recover the hCG-induced T secretion in hyperPRL rats. Etanercept (trade name Enbrel), an inhibitor of TNF- α, is commonly used to treat TNF- α-elated autoimmune diseases. The purpose of this study is to investigate the effects of etanercept on T release in vivo using a hyperPRL rat model.

Methods and Materials: Male Sprague-Dawley rats (8 week-old) were grafted with either anterior pituitary glands (+AP) or similar amount of cerebral cortex (+CX) to the recipient subrenal capsule 6 weeks prior to experiments. Rats with +AP demonstrated hyperPRL, and were intra-testicularly administered etanercept (0.4 or 0.8 mg/testis/kg). Control rats were injected with saline in the same way. One week after Etanercept injection, blood samples were collected at before and 30, 60, 90, 120, 180, 240 min after intravenous hCG challenge (5 IU/kg). T was measured by radioimmunoassay.

Results: Compared to the control, a delayed T secretion was observed in +AP rats. After administration of etanercept, we found significant improvement in T secretion in +AP rats, which also demonstrated a dose-dependent manner.

Conclusions: According to the results, we showed that etanercept is able to recover the hCG-stimulated T secretion in the +AP-induced hyperPRL rats. These findings are concordant to our prior experiments using intra-testicular anti-TNF-α antibody. These evidence implies that TNF-α is a key detrimental factor on hCG-stimulated T release from the Leydig cells in hyperPRL status. Etanercept might have a potential therapeutic effect on the hyperPRL-related hypogonadism.

O-3

Etanercept 對雄性高泌乳素大鼠生殖細胞凋亡存活的效應是經由 NF-κB 訊息傳遞的路徑

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The Survival Effect of Etanercept on Germ Cells of Hyperprolactinemic Male Rats is through a NF-κB Signaling Pathway

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Purpose: Hyperprolactinemia (hyperPRL) related hypogonadism is known operated by a mechanism involving TNF-α –mediated inhibition of steroidogenesis in Leydig cells. Futhermore, TNF-α also induces germ cell apoptosis in male rats through binding to TNF receptors, followed by turning on caspase pathways. However, there are some other molecules playing roles in determining the fate of germ cells. Nuclear factor-κB (NF-κB) is one of the transcription factors, conducting pro-survial signal of cell life. Etanercept (trade name Enbrel), an inhibitor of TNF-α, is a drug used in treating autoimmune diseases. This study aimed to investigate whether NF-κB is activated to prevent the germ cells from entering apoptosis by treating with etanercept in the hyperPRL male rat model.

Materials and methods: Male Sprague-Dawley rats (8-12 weeks old) were used as models of hyperPRL. Two anterior pituitary (AP) glands were grafted into the renal subcapsular space for inducing high level of prolactin secretion. Similar amount of cerebral cortex (CX) were implanted in similar way to the control group. Six weeks after grafting, rats were injected with etanercept (0.4 or 0.8 mg/testis/kg) or saline intratesticularly. After one week, rats were sacrificed and germ cells were isolated after collagenase treatment. Protein extraction from tubular compartment (70 μg total protein) were assayed by Western blotting for analysis of NF-κB-related pathway expression.

Results: In saline injected groups, the tubular tissue from AP-grafted rats demonstrated less intensive expression of NF-κB signals than that from the CX-grafted rats. After treatment with etanercept, the expression of NF-κB signals increased significantly in AP group to the levels of the CX group.

Conclusion: This study demonstrated the evidence that TNF-α playing a key role in the hyperPRL-related germ cell apoptosis in male rats, and entanercept (TNF-α antagonist) is able to modify the process at least through a NF-κB pathway. The results of this study support the findings of our prior experiments that etanercept administration helps in decreasing apoptosis in germ cells of AP-grafted male rats. It implies that etanercept is possibly a potential treatment option to hyperPRL-related male subfertility or infertility.

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雙側海綿體神經損傷大鼠陰莖背神經變化的形態學證據

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Morphological Evidences of Dorsal Penis Nerve Changes in Bilateral Cavernous Nerve Crush Model of Rat

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Objectives: Some evidences showed cavernous nerve (CN) joint dorsal penis nerve (DPN) in the penis level by cadavers' examination. Moreover, DPN is usually one of the end measurements in bilateral cavernous nerve crush model of rat. However, no definite morphological changes were reported in the DPN after CN injury. The purpose of this study is to shed light on the morphological changes in DPN after CN injury in rat model.

Materials and Methods: Totally, fourteen Sprague-Dawley male rats were randomly divided into two groups: the sham group and the bilateral CN crush group (injury group). Four weeks later, erectile function was assessed by CN electrosimulation, and penile tissue was collected for histology. Immunofluorescence stains for the confirmation of nerve types were done. Finally, transmission electron microscopy (TEM) for Schwann cell damage and other detailed morphological changes were also performed.

Results: Erectile function was significantly decreased in injury group with lower both mean intracavernosal pressure (ICP) and ICP/mean arterial pressure ratio. In H&E stain, mean diameter, number of neuritis, inflammatory cells infiltration of the largest branch of DPN were similar in both sham group and injury group. However, significantly increased perineural spaces were noted in injury group. In addition, significantly loss of capillary sized small branches (composed of mainly parasympathetic nerves) was seen in the injury group. nNOS showed significantly decreased in injury group in both large and small nerve branches. TEM showed Schwann cell damage and abnormalities of myelin sheath.

Conclusions: Morphological changes after CN injury were seen in DPN on both light microscope and TEM. The current study support the evidences of CN, at least partially, joint with DPN in rat. In addition, small capillary sized branches loss may be a representative feature of CN injury in DPN by light microscope.

O-5

早洩盛行率與心理因子的相關性

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Prevalence of Premature Ejaculation and Its Association with Psychological Factors

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Objectives: Premature ejaculation (PE) is one of the most common male sexual dysfunction with a global prevalence of around 30% across age groups and different cultures. The purpose of this study was to investigate the prevalence of PE and its risk factors through an internet survey.

Methods and Materials: Taiwanese men aged 20–60 years who have a stable relationship for at least 2 yrs or considered themselves to have PE will be recruited to participate in the online survey. The target number is 1000 valid responders. The survey encompassed six parts with 64-item, including questions for demographic data, ejaculation profiles (the Premature Ejaculation Diagnostic Tool [PEDT] contained), the Index of Premature Ejaculation (IPE), the Sexual Health Inventory for Men (SHIM), the Self-Esteem and Relationship questionnaire (SEAR), and the Hospital Anxiety and Depression Scale (HADS). The Institutional Review Board reviewed and approved the study protocol.

Results: A total of 1000 participants answered the survey from Nov. to Dec., 2013 with a mean age of mean 40.8 ± 10.3 yrs. According to definition of DSM-IV, 31.5% of Taiwanese adult men were bothered by PE. Compared with those who were not bothered by PE, men with PE reported a higher IPE score, a lower SEAR score, a higher HADS-A and HAD-D score and a lower SHIM score ($p < 0.001$). Based on PEDT, 7.1% had PE and 5.1% had probably PE and those who had PE had a worse psychosocial function and a lower erectile function than those who were normal ($p < 0.001$). A shorter IELT (<2 min) also was found to have a worse psychosocial function than those who had a longer IELT (2-5 min and >5 min). Primary PE was reported in 0.9% and secondary PE in 18.5%. The psychosocial function was similar between primary and secondary PE ($p > 0.05$). Dependent risk factors for PE include ED, BPH and age.

Conclusion: About 30% of Taiwanese men aged between 20 to 60 years are bothered by too fast ejaculation and the prevalence is dependent of age, slightly decreased in the aged group. PE or a short IELT is associated with psychological disorders and has impacts on one's self-esteem and relationship with sexual partner.

O-6

慢性攝護腺炎對於早發性射精是個危險因子：台灣健保資料庫研究

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Chronic Prostatitis is a Risk Factor to have Premature Ejaculation: A Database Study in Taiwan

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Purpose: Premature ejaculation is a common male sexual disorder and significantly affects quality of life in both genders. We conducted a retrospective study using the National Health Insurance Database of Taiwan to examine the prevalence rate, risk factors of premature ejaculation in chronic prostatitis patients and the correlation between two different diseases.

Methods: We used the database of Taiwan's National Health Insurance Research to retrieve a million people samples from 2001 to 2010. All outpatient and inpatient databases were included. We used the "International Classification of Diseases, 9th Revision, Clinical Modification" (ICD-9-CM) codes as diagnostic and inclusion criteria. In this study, we analyzed the correlation of chronic prostatitis and premature ejaculation in order to describe the statistical significance observed between study and control groups. The demographic characteristics including gender, age, level of urbanization, economic status, comorbidities and premature ejaculation were analyzed. The Chi-square test and Cox proportional hazard model are used for statistic comparison.

Results: From 2001 to 2010, there were 2568 patients with chronic prostatitis met the including criteria of this study. In our study, the prevalence of premature ejaculation in control and study group (patients with chronic prostatitis) is 0.69% and 1.83%, respectively. After other variables were controlled, the risk of premature ejaculation in study group is 3.85 times as compared with the control group (95% CI, 2.48-5.99). The proportions of comorbidities of study group such as organic impotence, hypertension, hypercholesterol and mental illness are 3.93%, 45.25%, 15.77%, and 35.24 %. In the control group, above comorbidities are 0.83%, 36.33%, 9.83% and 16.6%, respectively. In the univariate and multivariate analysis, organic impotence has the most significant difference in risk (HR = 8.71, $p < 0.001$ and HR = 5.14, $p < 0.001$, respectively).

Conclusion: In summary, according to the Taiwan's National Health Insurance Research Database, this study shows a higher prevalence of premature ejaculation in patients with chronic prostatitis. In addition, the organic impotence is an independent risk factor for premature ejaculation also.

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會陰跨騎受傷後引起高血流陰莖持續勃起一壹病例報告

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High Flow Priapism Following Straddle Injury - One Case Report

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Objectives: Compared to low flow, high flow priapism is very uncommon and usually occurs after trauma to the genitoperineal area. We report a 53-year-old male patient who developed high flow priapism following straddle injury and was successfully managed with embolization.

Methods and Materials: We report the clinical history of this patient according to the chart record during hospitalization. The subject signed the written informed consent to join the study. The protocol was sent to the Institutional Review Board for approval.

A 53-year-old male has no systemic disease and previous surgeries. He suffered from blunt perineal trauma. Semi-rigidness of penis was noted immediately. Aspiration and analysis of cavernous blood was done. Color Doppler ultrasound was performed during hospitalization. High flow arteriogenic priapism was impressed. The right arteriocavernosal fistulae and pseudoaneurysm was showed by arteriography. Treatment consisted of right superselective gelfoam pieces embolisations, resulting in prompt detumescence.

Results: This 53-year-old male denied any systemic disease and surgical history. He sustained a straddle injury falling from chair with blunt injury to the perineum one month ago prior to the admission. There is no other concomitant injury, including exogenitalia and urethra. However, persistent penile erection ensued. Penile erection would become more pronounced upon sitting on chair or compressing to perineum. There is no any discomfort but caused inconvenience and bothersome in daily activity. Erectile function was not compromised. During admission, cavernous blood gas showed bright red with high oxygen saturation (pO2: 77.0mmHg, Sat O2: 95.1%). Color Doppler ultrasound showed high peak systolic velocity (23 cm/s) and end diastolic velocity (12.9 cm/s). Arteriography demonstrated the causative right arteriocavernosal fistulae and pseudoaneurysm. Embolization with gelfoam injection was carried out by radiologist. Priapism resolved after treatment. He reported to have improved erectile function.

Conclusion: High flow priapism can be successfully managed by hyperselective embolization with a favorable result.

O-8
下泌尿道症狀對女性性功能之影響

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The Effect of Lower Urinary Tract Symptoms on Female Sexual Dysfunction

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Background: Female sexual dysfunction (FSD) has been defined as a multifactorial condition with anatomic, physiologic, medical, psychological, and social components. Lower urinary tract symptoms (LUTS) with or without urinary incontinence (UI) are common in women and can have a profound effect on women's physical, social, and sexual well being. We attempted to define the effect of LUTS with/without UI on FSD in Taiwanese women.

Methods: Women aged 20 or above with fixed sexual relationship came to our urology clinic for voiding problems were invited to participate in LUTS group, while those for other urological disease in control group. A consent sheet with detailed instruction was completed by every patient. Two validated instruments, American Urological Association Symptom Index (AUA-SI) and the female sexual function index (FSFI) were implemented to evaluate the LUTS and sexual function of these patients. The FSFI total scores and scores within the individual domains were compared between LUTS group and control group. Furthermore, the FSFI total scores and scores within the individual domains are correlated with the AUA-SI and subscores (voiding or storage symptom score, eg. AUA-SI-V or AUA-SI-S).

Results: A total of 78 women in LUTS group and 89 subjects in control group with mean age 54.85 (range 39–70) and 43.31 (range 30–66) respectively were enrolled in this study. The mean scores of AUA-SI were 17.79±11.62 in LUTS group and 3.34±4.31 in control group ($p=0.000$). The women in LUTS group had significantly lower scores in FSFI total and domain in desire, arousal, lubrication and orgasm than those in control group ($p=0.045$, 0.031, 0.004, 0.045 and 0.050 respectively). The AUA-SI scores were negatively correlated with FSFI total scores and domains in arousal, lubrication, orgasm and satisfaction ($p=0.050$, 0.013, 0.037, 0.035 and 0.048 respectively). However, only AUA-SI-V but not AUA-SI-S subscores were negatively correlated with FSFI total scores and domains in arousal, lubrication, orgasm and satisfaction.

Conclusion: There is a high prevalence of FSD in women with LUTS. The sexual function of women is negatively impacted by the presence of LUTS, with voiding symptoms causing the greatest degree of FSD. The sexual domains most affected are arousal, lubrication, orgasm and satisfaction.

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