



MASTER OF PUBLIC HEALTH

Postgraduate Diploma & Postgraduate Certificate

2014/15

Public Health Practice

Epidemiology and Biostatistics
Infectious Diseases
Health Economics, Policy and Management

Information Day

- January 18, 2014 & March 8, 2014
- 2:00 4:00 p.m.
- Seminar Room 6, LG1 Laboratory Block, Faculty of Medicine Building
 21 Sassoon Road, Hong Kong

Early Admissions Deadline

15 February 2014



Contents

M	essage from President	
•	New Year Message from the President Dr Raymond SK LO	2
Ed	litorial	
-	Editorial Dr Ming-kwong YIU	4
M	edical Bulletin	
•	Diagnostic Evaluation of Lower Urinary Tract Symptoms in Men Dr James HL TSU & Dr Ming-kwong YIU	6
	MCHK CME Programme Self-assessment Questions	10
•	Urolithiasis Dr Ka-lun LO & Prof. Chi-fai NG	12
•	Nephron Sparing Surgery for Small Renal Masses Dr Wing-hang AU, Dr Chi-fai KAN & Dr Chi-man NG	16
•	Haematuria, Its Implications and Necessary Investigations Dr Steve WH CHAN	18
•	Erectile Dysfunction: An Under-recognised Condition in Hong Kong Dr Ada NG	22

Dermatological Quiz		
■ Dermatological Quiz Dr Lai-yin CHONG	20	
Federation News		
Society News	29	
Medical Diary of January	30	
Calendar of Events	31	



Scan the QR-code

To read more about The Federation of Medical Societies of Hong Kong

New Edition of Medical and Dental Directory Submit your data NOW! http://www.fmshk.org/directory2012.php

Disclaimer

All materials published in the Hong Kong Medical Diary represent the opinions of the authors responsible for the articles and do not reflect the official views or policy of the Federation of Medical Societies of Hong Kong, member societies or the publisher.

Publication of an advertisement in the Hong Kong Medical Diary does not constitute endorsement or approval of the product or service promoted or of any claims made by the advertisers with respect to such products or services.

The Federation of Medical Societies of Hong Kong and the Hong Kong Medical Diary assume no responsibility for any injury and/or damage to persons or property arising from any use of execution of any methods, treatments, therapy, operations, instructions, ideas contained in the printed articles. Because of rapid advances in medicine, independent verification of diagnoses, treatment method and drug dosage should be made.

The Cover Shot



The Wintry Star

This portrait of a sleepy town in rural Russia was taken in mid Winter when the Onion Domes were covered with snow.

The sun is deliberately placed so that it pierced through the window as I moved into position.

HDR technique ensures all detail is captured despite backlight. A small aperture is used so that the sun becomes "star-like".

The evening color lit up the sky.

The bare tree in the left served to balance the towers in the right.



Dr Amy LM PANG

MBBS(HK),FRCR,
FHKCR,FHKAM(Radiology)

Specialist in Radiology



New Year Message from the President

Dr Raymond SK LO

President The Federation of Medical Societies of Hong Kong



Dr Raymond SK LO

Time flies by swiftly, and we are stepping into a bright new year. First of all, on behalf of the Federation of Medical Societies of Hong Kong, may I wish you a healthy and prosperous year of 2014.

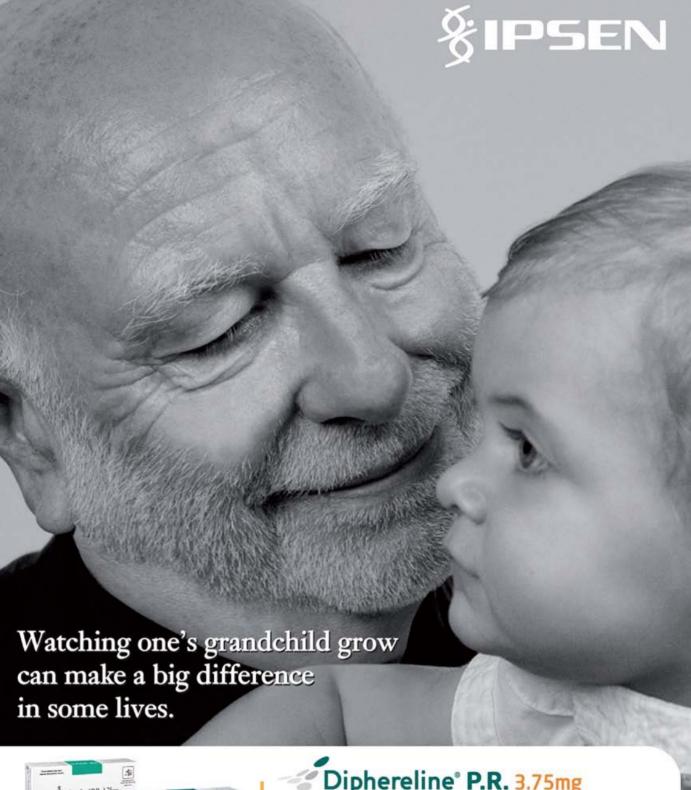
The past year has indeed been another rich and productive year for the Federation. Our fraternity has remained strong with a total of 133 member societies. The Presidents' and Editors' Dinner held in September was a success. Our annual event of Presidents' Cup of Soccer Five & Basketball Tournament was blessed with a record number of teams enrolled. The New Year's Eve Dinner of 2013 with the theme of "Federation Cruise" proved to be another memorable evening, with revenue going towards the theatresports programme of our charity project for bereaved children.

As the umbrella organisation of medical, dental, nursing and allied health professional societies of Hong Kong, we strive for the betterment for our health professions. From the educational perspective, our Annual Scientific Meeting last year on the timely issue of "Obesity-related disorders: an emerging epidemic" was very well received. The number of seminars and certificate courses held last year was another record high. We welcome further initiatives with members and various partners in delivering quality academic activities for our members and professions in the years to come.

It is also the mission of our Federation to promote the health and well-being of our population at large. Important health messages from our population survey on childhood obesity were widely promulgated through the media last summer. Health talks to the public included a wide range of topics on infectious diseases, cancer care and nutrition, dental implants etc. Our weekly radio programme at RTHK and health festivals remained popular. More health education for our public is in demand, and the Federation and Foundation will devote increasing strengths and efforts.

For the advocacy role in safeguarding the health of our public, the Federation has nominated representatives to government committees and Legislative Council meetings on issues such as cosmetic and beauty services, and regulation of clinical procedures in ambulatory setting. Various medical and health issues will need our feedback and advice, and we shall be actively seeking your views.

Our Federation is here to serve, and the goal of continuing growth and development for the common good of our professions will very much rely on your participation. Thank you for your continuing support to the Federation, and with the concerted efforts we are confident of taking our activities to new heights in 2014. We look forward to working alongside with you in the near future.





Caring about men with prostate cancer





Published by

The Federation of Medical Societies of Hong Kong

EDITOR-IN-CHIEF

Dr MOK Chun-on 莫鎮安醫生

EDITORS

Prof CHAN Chi-fung, Godfrey 陳志峰教授 (Paediatrics)

Dr CHAN Chi-kuen 陳志權醫生 (Gastroenterology & Hepatology)

Dr KING Wing-keung, Walter

金永強醫生 (Plastic Surgery) Dr LO See-kit, Raymond

勞思傑醫生 (Geriatric Medicine)

EDITORIAL BOARD

Dr AU Wing-yan, Thomas

區永仁醫生 (Haematology and Haematological Oncology)

Dr CHAK Wai-kwong 翟偉光醫生

(Paediatrics)

Dr CHAN Chun-kwong, Jane 陳真光醫生

(Respiratory Medicine)

Dr CHAN Hau-ngai, Kingsley

陳厚毅醫生 (Dermatology & Venereology) Dr CHAN, Norman

陳諾醫牛

(Diabetes, Endocrinology & Metabolism)

Dr CHEUNG Fuk-chi, Eric 張復熾醫牛

(Psychiatry)

Dr CHIANG Chung-seung 蔣忠想醫生

(Cardiology)

Prof CHIM Chor-sang, James

詹楚生教授 (Haematology and Haematological Oncology)

Dr CHONG Lai-yin 莊禮腎醫生 (Dermatology & Venereology)

Dr CHUNG Chi-chiu, Cliff

(General Surgery)

鍾志招緊生 Dr FONG To-sang, Dawson

(Neurosurgery)

Dr HSUE Chan-chee, Victor

徐成之醫生

(Clinical Oncology)

Dr KWOK Po-yin, Samuel 郭寶腎醫牛

(General Surgery)

Dr LAM Siu-keung

林兆強醫生 Dr LAM Wai-man, Wendy

(Obstetrics & Gynaecology)

林彗文醫生

(Radiology)

Dr LEE Kin-man, Philip

李健民醫生 (Oral & Maxillofacial Surgery)

Dr LEE Man-piu, Albert 李文彪醫生

Dr LI Fuk-him, Dominic 李福謙醫生

(Obstetrics & Gynaecology)

Prof LI Ka-wah, Michael, BBS 李家驊醫牛

(General Surgery) Dr LO Chor Man

虛礎文醫生

(Emergency Medicine)

Dr LO Kwok-wing, Patrick

盧國榮醫生 (Diabetes, Endocrinology & Metabolism)

Dr MA Hon-ming, Ernest 馬蓮明醫牛

(Rehabilitation)

Dr MAN Chi-wai 文志衛醫生

(Urology)

Dr NG Wah Shan

(Emergency Medicine)

伍華山醫生 Dr PANG Chi-wang, Peter

彰志宏馨生 Dr TSANG Kin-lun (Plastic Surgery)

曾建倫醫生 Dr TSANG Wai-kay (Neurology)

曾偉基醫牛 Dr WONG Bun-lap, Bernard

袁淑腎醫牛

(Nephrology)

黄品立醫生 Dr YAU Tsz-kok (Cardiology)

游子覺醫生

(Clinical Oncology)

Prof YU Chun-ho, Simon 余俊豪教授

Dr YUEN Shi-yin, Nancy

(Ophthalmology)

(Radiology)

Design and Production

A-PRO MULTIMEDIA LTD www.apro.com.hk

Editorial

Dr Ming-kwong YIU

MBBS(HK), FRCS(Ed.), FCSHK, Dip. Urol.(London), FHKAM(Surgery)

Chief and Consultant, Division of Urology, Department of Surgery, University of Hong Kong, Queen Mary Hospital

Editor



Dr Ming-kwong YIU

Urological problems are common encounters in our clinical practice. Although in the past it has largely been considered to be a minor subspecialty in our current medical profession practice. Many of these nonmalignant urological conditions do not kill. However they still affect one's quality of life significantly. When patients suffering from urological diseases like urinary stones, Lower urinary tract symptoms LUTS (formerly known as prostatism) or even erectile dysfunction, they often seek advice from their family doctors first. In fact many of these cases could be first well managed by family physicians before they are referred to urologists for specialised care or surgery. Another important aspect of urology problems faced by our family physicians is the management of incidental findings during health checks. Often patients have urine or ultrasound tests done as part of their health check package. They may discover microscopic haematuria or small kidney masses and ask for opinions, etc. It would be important for us to understand the clinical significance and principle of management of these common problems before we start counselling them with confidence.

In this issue of the Medical Diary we have asked some of our urologist colleagues to update our readers on the concept and principle of management of these common encounters in clinical practice. We hope this could provide some in depth knowledge for our family physicians, or specialists of other medical specialties to better manage, provide counselling and timely referrals of these patients for further care.





"Recent Advance in Acne Treatment" Symposium

Acne, as one of the most common dermatological diseases happened on adolescents and adults, requires concomitant maintenance treatment to avoid recurrence or remission. While topical medications are effective in treating mild to moderate acne, we have the pleasure to invite Dr. Alessandra Alio to present you the combination therapies, of which recent studies have shown that combinations of topical treatment enhance efficacy and work more effectively than standalone therapeutic agent.

Speaker: Dr. Alessandra Alio

Specialist in Dermatology & Venereology Clinical Development Manager, Medicines Department, Stiefel Global Clinical Development, United States

Date: 10th January, 2014 (Friday)

Time: 12:45 Reception

13:00 "Recent Advance in Acne Treatment" Symposium

14:00 Lunch Buffet

Venue: Jade Ballroom, 2nd Floor, Eaton Hotel, 380 Nathan Road, Kowloon

Capacity: 100

Registration / Enquiry: For registration or enquiry, please contact

Ms. Erica Hung of the Secretariat at 2527 8898 or

Ms. Wing Kwong of GlaxoSmithKline Limited at 3189 8602

CME Accreditation: Pending

Diagnostic Evaluation of Lower Urinary Tract Symptoms in Men

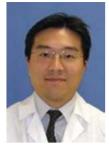
Dr James HL TSU

MBBS, FRCS(Urol)

Associate consultant, Division of Urology, Department of Surgery, University of Hong Kong Queen Mary Hospital

Dr Ming-kwong YIU

MBBS(HK), FRCS(Ed.), FCSHK, Dip. Urol.(London), FHKAM(Surgery) Chief and Consultant, Division of Urology, Department of Surgery, University of Hong Kong, Queen Mary Hospital





Dr James HL TSU

Dr Mina-kwona YIU

This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded 1 CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 31 January 2014.

Introduction

The histological diagnosis of benign prostatic hyperplasia (BPH), with the secondary effect of benign prostate enlargement, and its associated complications including bladder outlet obstruction (BOO) and lower urinary tract symptoms (LUTS), are some of the most prevalent disorders currently affecting men. However, during the last decade the causal link between the prostate and the pathogenesis of LUTS has come into question and it is now believed many factors, other than the prostate can contribute to the LUTS seen in elderly men. The correct management of LUTS hinges on the evidence-based evaluation and investigation of LUTS. Herein we describe an updated diagnostic evaluation approach to adult men presenting with LUTS, based on published guidelines from major urological bodies. 2-4

Nomenclature

The term LUTS was introduced in 1994 to escape the 'prostate-centric' approach of doctors to this constellation of voiding symptoms seen in men, which led to many men having unnecessary prostate surgeries when their symptoms had other causes.⁵ The old term 'prostatism' was conceptually wrong as it had become clear that a significant amount of patients with 'prostatism' were in fact suffering from conditions unrelated to their prostate glands. LUTS is divided into 1) storage symptoms which are experienced during the storage phase of the bladder and include daytime frequency, nocturia and urgency, and 2) voiding symptoms which are experienced during the voiding phase. The latter include a weak stream, hesitancy and the need for straining during voiding.6 LUTS may be due to structural or functional abnormalities in one or more of the parts of the lower urinary tract which comprises the bladder, bladder neck, prostate, distal sphincter mechanism and urethra. It must also be remembered that LUTS may result from abnormalities of the peripheral and/or central nervous system(s) which provide neural control to the lower urinary tract. LUTS may also be secondary to cardiovascular, respiratory or renal dysfunction or disease.4 To this date, many clinicians still use BPH and LUTS interchangeably but it is noteworthy there are important differences between the terms. BPH is a histological diagnosis and is reserved for the histological pattern it describes, for instance, in prostatectomy specimens. Benign prostate enlargement (BPE) is used when there is clinical prostate enlargement based on the size of the prostate. Neither

BPE nor BPH can cause LUTS alone in men without obstruction. Hence the real cause of LUTS in men in the traditional concept of 'prostatism' should be benign prostatic obstruction (BPO), which is used to denote obstruction proven by urodynamic studies (pressure flow studies), or highly suspected from uroflowmetry or a clinical BPE. BOO is the generic term for all forms of obstruction to the bladder outlet (e.g. urethral stricture) including BPO. Terms such as 'BPH patient', 'symptomatic BPH', 'clinical BPH', 'drugs for BPH' and 'BPH treatment' are imprecise, cause confusion and are therefore not recommended.4 In terms of investigation and treatment of LUTS as a result of the prostate, what clinicians are interested is not BPH or BPE, but the presence or absence of BPO. The common causes for LUTS are listed in Table 1.

Overactive bladder (OAB) is a clinical diagnosis defined as urinary urgency with or without urgency incontinence, usually with urinary frequency and nocturia, in the absence of UTI or other obvious pathology. In patients with OAB undergoing pressure flow studies, there may or may not be detrusor overactivity (DO), defined as involuntary detrusor contractions during the filling phase that may be spontaneous or provoked.

Table 1. Common aetiological causes of LUTS in adult men. Benign prostatic obstruction (BPO) Overactive bladder (OAB) Nocturnal polyuria 24-hour polyuria Detrusor underactivity (DUA) Neurogenic bladder dysfunction Urinary tract infection Prostatitis Urethral stricture Bladder tumour Distal ureteral stone

Basic evaluation

A set of basic evaluations should be offered by all health care providers, including primary care physicians to every adult man presenting with LUTS.

History and physical examination

A relevant medical history should be obtained focusing on the nature and duration of the voiding symptoms. In addition to previous surgical procedures, especially those affecting the genitourinary tract, general health issues, sexual history and the list of medications the



patient is currently taking should be noted. Commonly encountered conditions masquerading as LUTS such as uncontrolled diabetes, urinary tract infections, neurological disorders can be elucidated from a careful history. Particular lifestyle factors contributing to LUTS such as caffeine or alcohol consumption as well as excessive intake of liquids should also be noted. Medications such as diuretics, antidepressants and those with sympathomimetic or anticholinergic properties can have significant effects on an individual's voiding patterns.

A focused physical examination should be performed on every patient, classically starting with an overall impression of his gait as the patient comes through the door. The patient's overall motor and sensory functions with a focus on the perineum and lower limbs should be noted. Examination of the abdomen should focus on the suprapubic area to rule out bladder distension. Digital rectal examination (DRE) should be performed on every patient to evaluate the anal sphincter tone and the prostate gland, in terms of its approximate size, consistency and abnormal nodules suggestive of prostate cancer. However, it should be noted that the accuracy of DRE for assessing prostate size varies from suboptimal to poor. 7,8 Furthermore, the prostate size alone does not correlate precisely with symptom severity, degree of urodynamic obstruction or treatment outcomes. On the other hand, the prostate volume has been shown to correlate with increased risk of disease progression into adverse events such as a rise in symptom scores or acute urinary retention.

Assessment of symptom severity and bother

A semi-quantitative assessment of symptoms and bother using a validated questionnaire is strongly recommended to grade the severity of the LUTS and to understand the degree of bother caused by those symptoms. In Hong Kong, the most commonly used instrument would be the International Prostate Symptom Score (I-PSS), which assesses the frequency of three storage symptoms (frequency, nocturia and urgency) and four voiding symptoms (incomplete emptying sensation, intermittency, straining and weak stream). The I-PSS is usually followed by a bother score which evaluates the quality of life of the patient with the LUTS (range from 0 = delighted to 6 = terrible). Completion of the I-PSS yields a total score ranging from 0 to 35 (1-7 for mild symptoms, 8-19 for moderate; and 20-35 for severe). However, it should be noted I-PSS is just an instrument to rate the severity of LUTS but by no means it can aid in the diagnosis of the reasons underlying LUTS. The I-PSS has shown a poor correlation with underlying BOO and the ability of I-PSS in diagnosing BOO is also poor. 10-13 A gentleman suffering from bothersome LUTS with a high I-PSS score could well be having an underlying condition unrelated to the prostate, such as bladder cancer.

Urinalysis and serum prostate-specific antigen

Urine should be examined using dipstick tests to determine if the patient has microhaematuria, proteinuria, pyuria or other pathological findings. Examination of the urinary sediment and culture is indicated if the dipstick is abnormal. Prostate-specific antigen (PSA) testing should only take place after discussion with the patient about the benefits and risks, including the false-positive and false-negative

results, the possible complications of the subsequent confirmatory test, namely prostate biopsy and finally the shortcomings of prostate biopsy such as the possibility of false-negative biopsy. As recommended by all major guidelines, PSA test for the purpose of detection of early prostate cancer should only be performed if life expectancy is greater than 10 years and if a diagnosis of prostate cancer would modify the management approach.²⁻⁴ On the other hand, serum PSA has been shown to be a reasonable predictor of prostate volume and risk of disease progression in men with LUTS and can be used in this capacity in treatment decision making.4 However, we do believe a detailed discussion with the patient about the pros and cons of PSA testing and the subsequent events following an abnormal result is a good practice, given the controversy surrounding its use as a tool for prostate cancer screening. 14-16

Serum creatinine

Although measurement of serum creatinine can identity patients with renal insufficiency due to BPO and these patients have increased risk of postoperative complications after BPO surgery, the American Urological Association expert Panel, after analysing several large LUTS/BPO randomised controlled trials, reported a rate of renal insufficiency to be less than 1% and often attributed to causes unrelated to the prostate (e.g. diabetic nephropathy).¹⁷ As a result of the low prevalence of renal insufficiency in this group of patients, all major guidelines no longer recommend routine assessment of serum creatinine in the evaluation process.²⁻⁴

Frequency volume charts

Frequency volume charts or bladder diaries are particularly useful when nocturia is the main dominant symptom. In these charts, the time and voided volume are recorded for each micturition during several (usually three) 24-hour periods. Nocturnal polyuria, defined as present when more than 33% of the 24-hour urine output occurs at night and 24-hour polyuria, defined as total 24-hour urine output more than three litres can easily be diagnosed on a bladder diary. In addition, any excessive fluid intake, which is common in the elderly, can be noted.

Management after basic evaluation Referral to urologist for 'complicated LUTS'

If the basic evaluation demonstrates the presence of LUTS associated with one or more of the following findings: DRE suspicious of prostate cancer, haematuria, abnormal PSA, recurrent infections, palpable bladder or neurological disease, the patient should be referred to an urologist for further investigation before starting treatment. These signs and symptoms are suggestive of more serious underlying conditions such as prostate cancer or neuropathic bladder.

Initiation of treatment

On the other hand, when basic evaluation demonstrates the presence of bothersome LUTS without the said findings, the primary care providers can start treatment based on the diagnosis of the underlying causes without further tests. Among the conditions causing LUTS, the most important are BPO, OAB and nocturnal polyuria. It has been suggested that BPO should be objectively diagnosed by the use of invasive testing (pressure flow urodynamic study) before starting treatment. 18 However,



nowadays the initiation of non-surgical treatment of LUTS and its underlying conditions after a set of basic evaluation is universally endorsed by all guidelines.²⁻⁴ This is mainly because it is impractical to subject patients to an invasive uncomfortable urodynamic study if the management they are offered is simple, safe and relatively inexpensive. 19 Moreover, even in conditions like prostatic obstruction, which were previously thought to be potentially dangerous and need early treatment, have been shown in longitudinal studies to be relatively benign and show little progression.^{20,21} Therefore in primary care there should be a discussion of the benefits and risks involved with each of the recommended treatment options which include lifestyle intervention, behavioural modifications and medical treatment. The choice of treatment should be reached in a shared decision making process between the clinician and the patient.

If the patient is found to have 24-hour polyuria from the frequency volume chart and the intake of fluid is excessive, he should be educated about appropriate intake. In practice, it is suggested that patients with 24-hour polyuria are advised to aim for an urine output of one litre per 24 hours. Similarly, lifestyle changes such as reduction of fluid in the evening and avoidance of bladder stimulants such as caffeine and alcohol should be advised in patients with nocturnal polyuria. In refractory cases, desmopressin can be used but it is the authors' opinion that this medication should be prescribed by a specialist urologist due to possible disturbances to the serum osmolality.

If the patient's main complaint is storage symptoms and the clinical diagnosis is OAB, then a combination of lifestyle modifications (avoidance of bladder stimulants), behavioural intervention (bladder training and pelvic floor muscle training) and medical treatment (antimuscarinics) can be used. Antimuscarinic agents, by interrupting the parasympathetic pathway at the cholinergic muscarinic receptors, abolish or damp down detrusor muscle contractions, thereby relieving the OAB symptoms. These agents are contraindicated in patients with narrow angle glaucoma and may cause dry mouth and constipation. They should be used with caution in patients with delayed gastric emptying and history of urinary retention.²² There has long been a reluctance to use antimuscarinic agents in patients with LUTS due to probable BPO as it may exacerbate the underlying obstruction and produce urinary retention. Nonetheless, studies have shown that antimuscarinics are safe in patients with concomitant OAB and urodynamically proven BOO with no evidence of adverse effects on voiding pressures, residual urine volume or incidence of retention.23 In addition, it has now been shown that the combination of antimuscarinics to alpha-adrenergic receptor blockers (AARB) produces statistically and clinically significant improvement in symptoms in patients with both storage and voiding LUTS when monotherapy with AARB fails.²⁴

If the patients are mainly complaining of emptying symptoms and from the basic evaluation there is probable BPO, AARB may be used, with or without the combination with 5-alpha reductase inhibitors (5ARI). It is beyond the scope of this article to discuss the full armamentarium of medical treatment to relieve BPO

but readers are referred to another article in an earlier edition for further information.²⁵

Specialised evaluation

After starting basic management, if patients report persistent bothersome LUTS, they should be referred to urologists for additional specialised evaluation. From the results of the specialised evaluation, patients may undergo further medical treatment or surgery for their underlying conditions.

Uroflowmetry and post-void residual urine

Objective measurement of variables such as maximum urinary flow rate (Qmax) and volume of residual urine after voiding gives useful information on micturition and can be used to monitor treatment response. However it should be noted that a low Qmax rate does not distinguish between BPO and detrusor underactivity (DUA).26 Studies have shown that using a Qmax of less than 10 ml per second, the positive predictive value of diagnosing underlying BOO is 70% only but may be improved by performing uroflowmetry in a structured manner and doing multiple flows.²⁷⁻²⁹ Moreover, patients with obstruction who have high detrusor pressure can maintain a normal urinary flow rate.7 It has been shown even with a Qmax of over 15 ml per second, 30% of men had urodynamically proven BOO.²⁸ Uroflowmetry results can also show considerable variations in the Qmax on the same or on different days. Because of the intra-individual variability and the volume dependency of the Qmax, at least 2 flow rates should be obtained, ideally both with a voided volume of greater than 150ml.

Pressure flow studies

Pressure measurement (cystometry) during bladder filling and voiding defines several important urodynamic abnormalities including BOO and overactivity or underactivity of the detrusor muscle. As the test is invasive and involves catheterisation, it is recommended before invasive therapy such as surgery in men, especially in those with Qmax greater than 10 ml per second. Pressure flow studies are of proven value in the evaluation of patients before invasive therapies, or when a precise diagnosis of BPO or BOO is important. It is currently the only method to distinguish men with a low urinary flow rate due to DUA from those with BOO. Studies have shown when patients were found to have severe LUTS but without BOO, they were less likely to benefit from invasive treatment designed to relieve outlet obstruction.³⁰ Consequently these patients should have their symptoms treated in an appropriate fashion by other means.

Upper urinary tract imaging

Imaging of the upper urinary tract is not considered a routine practice in the workup of patients with LUTS. However, it is indicated in patients with one or more of the signs/symptoms or history of upper urinary tract infection, haematuria, urolithiasis, renal insufficiency and recent onset nocturnal enuresis. If imaging is indicated, an ultrasonography is usually sufficient as the initial imaging modality. In addition, certain treatments for BPO including medical treatment with 5ARI or open surgical prostatectomy require an assessment of the prostate size and configuration. This is usually achieved with a transrectal ultrasound. However, such imaging is not considered necessary in the routine evaluation.

Medical Bulletin



Endoscopy of the lower urinary tract

Similar to urinary tract imaging, endoscopic examination of the lower tract is not indicated routinely in the diagnostic evaluation of LUTS. It is however, indicated in patients with symptoms of haematuria and when certain treatment modalities such as surgical transurethral incision of prostate is contemplated.

Conclusions

LUTS is a common presenting symptom among adult men and can be bothersome and affects patients' quality of life adversely. Satisfactory management of LUTS requires a careful and evidence-based diagnostic approach. Primary care physicians should note the multifactorial aetiology of LUTS and be able to initiate treatment after a set of basic evaluation. Patients should be referred to urologists if symptoms are persistently bothersome despite basic treatment, invasive therapy such as surgery is desired or when 'red-flag' features of complicated LUTS are present.

References

- Chapple CR, Roehrborn CG. A shifted paradigm for the further understanding, evaluation, and treatment of lower urinary tract symptoms in men: focus on the bladder. European urology 2006;49:651-8.

 McVary KT, Roehrborn CG, Avins AL et al. Update on AUA guideline on the management of benign prostatic hyperplasia. The Journal of urology 2011;185:1793-803.

 Celke M, Bachmann A, Descazeaud A et al. EAU guidelines on the treatment and follow-up of non-neurogenic male lower urinary tract symptoms including benign prostatic obstruction. European urology 2013;47:18-40.

 Abrams P, Chapple C, Khoury S, Roehrborn C, de la Rosette J. Evaluation and treatment of lower urinary tract symptoms in older men. The Journal of urology 2013;189:593-5101.

 Abrams P. New words for old: lower urinary tract symptoms for "prostatism". BMJ 1994;308:929-30.

 Abrams P, Cardozo L, Fall M et al. The standardisation of terminology of lower urinary tract

- Abrams P, Cardozo L, Fall M et al. The standardisation of terminology of lower urinary tract function: report from the Standardisation Sub-committee of the International Continence Society. Neurourology and urodynamics 2002;21:167-78.

 Belal M, Abrams P. Noninvasive methods of diagnosing bladder outlet obstruction in men. Part 2: Noninvasive urodynamics and combination of measures. The Journal of urology 2006;176:29-35.
- Weyhoff HH, Ingemann L, Nordling J, Hald T. Accuracy in preoperative estimation of prostatic size. A comparative evaluation of rectal palpation, intravenous pyelography, urethral closure pressure profile recording and cystourethroscopy. Scandinavian journal of urology and nephrology 1981;15:45-51.

- Roehrborn CC, Chinn HK, Fulgham PF, Simpkins KL, Peters PC. The role of transabadominal ultrasound in the preoperative evaluation of patients with benign prostatic hypertrophy. The Journal of urology 1986;135:1190-3.

 Barry MJ, Cockett AT, Holtgrewe HL, McConnell JD, Sihelnik SA, Winfield HN. Relationship of symptoms of prostatism to commonly used physiological and anatomical measures of the severity of benign prostatic hyperplasia. The Journal of urology 1993;150:331-8.

 Chancellor MB, Rivas DA, Keeley FX, Lotti MA, Gomella LG. Similarity of the American Urological Association Symptom Index among men with benign prostate hyperplasia (BPH), urethral obstruction not due to BPH and detrusor hyperreflexia without outlet obstruction. British journal of urology 1994;74:200-3.

 Ezz el Din K, Kiemeney LA, de Wildt MJ, Debruyne FM, de la Rosette JJ. Correlation between uroflowmetry, prostate volume, postvoid residue, and lower urinary tract symptoms as measured by the International Prostate Symptom Score. Urology 1996;48:393-7.
- measured by the international rhostate symptom Score. Urology 1799(45:35)-17.

 Yalla SV, Sullivan MP, Lecamwasam HS, Dußeau CE, Vickers MA, Cravalho EG. Correlation of American Urological Association symptom index with obstructive and nonobstructive prostatism. The Journal of urology 1995;153:674-9; discussion 9-80.

 Brawley OW. Prostate cancer screening: what we know, don't know, and believe. Ann Intern Med 2012;157:135-6.
- Catalona WJ, D'Amico AV, Fitzgibbons WF et al. What the U.S. Preventive Services Task Force missed in its prostate cancer screening recommendation. Ann Intern Med 2012;157:137-
- Moyer VA. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2012;157:120-34. AUA guideline on management of benign prostatic hyperplasia (2003). Chapter 1: Diagnosis and treatment recommendations. The Journal of urology 2003;170:530-47.
- Shah JR. Should we treat lower urinary tract symptoms without a definitive diagnosis? No. BMI 2011:343:d6058.
- Abrams P. Should we treat lower urinary tract symptoms without a definitive diagnosis? Yes. BMJ 2011;343:d6038.

- Abrams P. Should we treat lower urinary tract symptoms without a definitive diagnosis? Yes. BMJ 2011;343:46038. Bates TS, Sugiono M, James ED, Stott MA, Pocock RD. Is the conservative management of chronic retention in men ever justified? BJU Int 2003;92:581-3. Thomas AW, Cannon A, Bartlett E, Ellis-Jones J, Abrams P. The natural history of lower urinary tract dysfunction in men: minimum 10-year urodynamic follow-up of untreated detrusor underactivity. BJU Int 2005;96:1295-300. Gormley EA, Lighiner DJ, Burgio KL et al. Diagnosis and treatment of overactive bladder (non-neurogenic) in adults: AUA/SUFU guideline. The Journal of urology 2012;188:2455-63. Abrams P, Kaplan S, De Koning Gans HJ, Millard R. Safety and tolerability of tolterodine for the treatment of overactive bladder in men with bladder outlet obstruction. The Journal of urology 2006;175:999-1004; discussion Kaplan SA, Roehrbom CG, Rovner ES, Carlsson M, Bavendam T, Guan Z. Tolterodine and tamsulosin for treatment of men with lower urinary tract symptoms and overactive bladder: a randomized controlled trial. Jana 2006;296:2319-28. Chan SW. Pathology and Medical Daira (2011;64-8. Chancellor MB, Blaivas JG, Kaplan SA, Axelrod S. Bladder outlet obstruction versus impaired detrusor contractility: the role of outflow. The Journal of urology 1991;145:810-2. Nielsen KK, Nordling J, Hald T. Critical review of the diagnosis of prostatic obstruction.

- impaired detrusor contractility: the role of outflow. The Journal of urology 1991;145:810-2. Nielsen KK, Nordling J, Hald T. Critical review of the diagnosis of prostatic obstruction. Neurourology and urodynamics 1994;13:201-17. Poulsen AL, Schou J, Puggaard L, Torp-Pedersen S, Nordling J. Prostatic enlargement, symptomatology and pressure/flow evaluation: interrelations in patients with symptomatic BPH. Scandinavian journal of urology and nephrology Supplementum 1994;157:67-73. Reynard JM, Peters TJ, Lim C, Abrams P. The value of multiple free-flow studies in men with lower urinary tract symptoms. British journal of urology 1996;77:813-8. Thomas AW, Cannon A, Bartlett E, Ellis-Jones J, Abrams P. The natural history of lower urinary tract dysfunction in men: the influence of detrusor underactivity on the outcome after transurethral resection of the prostate with a minimum 10-year urodynamic follow-up. BJU Int 2004;93:745-50.



MCHK CME Programme Self-assessment Questions

Please read the article entitled "Diagnostic evaluation of Lower Urinary Tract Symptoms in Men" by Dr James HL TSU and Dr Ming-kwong YIU and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 31 January 2014. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Ouestions 1-10: Please answer T (true) or F (false)

- BPH is the only cause contributing to LUTS
- LUTS may result from diseases of the CNS and peripheral nervous system
- 3. In patients with overactive bladder, there is always detrusor overactivity noted in pressure flow studies
- Urinary Tract infections could cause LUTS

Dr James HL TSU

MBBS, FRCS(Urol)

- Lifestyle factors like caffeine or alcohol consumption, and excessive intake of fluid do not contribute to the severity of LUTS
- The size of the prostate on PR examination correlates precisely with the severity of the LUTS
- A PSA test should be performed in all patients with LUTS without discussion about the risks and benefits of the test
- All patients with LUTS should have a urodynamic study performed for evaluation purposes
- Combination of alpha blockers and antimuscarinic drugs could be prescribed for patents with LUTS caused by BPH
- 10. Cystoscopy is still a routine investigation for patients presenting with LUTS caused by BPH

ANSWER SHEET FOR JANUARY 2014

Please return the completed answer sheet to the Federation Secretariat on or before 31 January 2014 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) selfassessment questions.

Dr Ming-kwong YIU

MBBS(HK), FRCS(Ed.), FCSHK, Dip. Urol.(London), FHKAM(Surgery)

Chief and Consultant, Division of Urology, Department of Surgery,

Diagnostic Evaluation of Lower Urinary Tract Symptoms in Men

Associate consultant, Division of Urology, Department of Surgery, University of Hong Kong Queen Mary Hospital University of Hong Kong, Queen Mary Hospital 5 HKMA No.: _____ CDSHK No.: __ Name (block letters): HKID No.: ___ - __ _ X X (X) HKDU No.: HKAM No.: Contact Tel No.: MCHK No.: _____ (for reference only)

Renal Denervation in the Management of Resistant Hypertension

Answers to December 2013 Issue

1. F 2. T 3. F 4. T 5. F 6. T 7. T 8. F 9. T 10. **F**











Excellent Persistence for OAB Solution 1

- Vesicare® is a M₃ selective drug²; higher M₃ selectivity associated with less impact on cognitive function.³
- Vesicare® showed long-term beneficial effects on both efficacy and safety.
- Patients receiving Vesicare® in a 40-week long term study had a high rate of persistence, low rates of anticholinergic side effects and discontinuation due to adverse events.¹

Vesicare® Abridged Prescribing Information:

Indications: Symptomatic treatment of urge incontinence and/or increased urinary frequency and urgency as may occur in patients with overactive bladder syndrome. Dosage and administration: Vesicare® is available in two strengths (5mg and 10mg). The recommended dose is 5 mg Vesicare® once daily. If needed, the dose may be increased to 10 mg once daily. Vesicare®should be taken orally with or without food and swallowed whole with liquids. Contraindications: Patients with urinary retention, severe gastro-intestinal condition (including toxic megacolon), myasthenia gravis, narrow-angle glaucoma, hypersensitivity to any of the ingredients, severe hepatic impairment, severe renal or moderate hepatic impairment and who are on treatment with a potent CYP3A4 inhibitor, e.g. ketoconazole. Patients who are undergoing haemodialysis. Warnings and Precautions: Patients with bladder outflow obstruction, decreased gastrointestinal motility, gastrointestinal obstructive disorders, severe renal or moderate hepatic impairment, hiatus hemia/gastro-oesophageal reflux, autonomic neuropathy or concomitant use of a potent CYP3A4 inhibitor, e.g. ketoconazole. Undesirable effects: The most commonly reported adverse reaction with Vesicare was dry mouth (11% of patients with 5 mg o.d., 22% of patients with 10 mg o.d.). The severity of dry mouth was generally mild and did only occasionally lead to discontinuation of treatment. Full prescribing information is available upon request.

References:

1) Haab F, Cardozo L, Chapple C, Ridder AM for the Solifenacin Study Group. Eur Urol 2005; 47: 376-384. 2) Ikeda K et al. Naunyn-Schmiedeberg's Arch Pharmacol 2002; 366: 97-103. 3) Ridder DD. Eur Urol 2006; 50(2): 211-212. Epub 2006 Apr 19.

OAB is an abbreviation of Overactive Bladder.



Tel: 2377 9801 Fax: 2856 1440

Urolithiasis

Dr Ka-lun LO

Adjunct Clinical Assistant Professor, Division of Urology, Department of Surgery, CUHK Associate Consultant, North District Hospital, New Territory East Cluster

Prof Chi-fai NG

Professor, Division of Urology, Department of Surgery, The Chinese University of Hong Kong





Dr Ka-lun LO

Drof Chi-fai NC

Introduction

Urolithiasis is a common urological disease and the lifetime prevalence is about 10%. ¹⁻⁴ In Hong Kong, due to Westernisation of dietary habits and global warming effects, the incidence is expected to increase in not only adults, but also the paediatric groups. Moreover, the recurrent rate for renal stones after treatment is up to 50%. ⁵⁻⁶ Therefore, both effective treatment and preventive measures are equally important.

Clinical Presentation

Most of the patients with urinary tract stones are asymptomatic. Occasionally, patients may present with some dull loin pain or haematuria. However, when the stone migrates into the ureter, it may cause obstruction. Patients usually present with renal colic, which is severe and persistent loin pain, sometimes radiating to the groin or even the scrotum. It may also be complicated by sepsis, haematuria or renal impairment. Very unusually, some patients may present with acute retention of urine secondary to urethral stones.

Investigation

When a patient is suspected to have urinary stone, plain radiography (Kidney-ureter-bladder view, KUB) is the first line of investigation. However the pickup rate for renal stones is only around 60-70%. This is because of the presence of radiolcuent stones and also sometimes the stones maybe overlapped by bowel shadows or bone structures.

Ultrasonography (USG) is another important diagnostic tool for stones, particularly for radiolucent stones and also for the assessment of hydronephrosis in an acute clinical condition (Fig 1). It is readily available, reproducible with no radiation and contrast usage. However, its drawbacks include operator dependancy and also difficulties in assessing mid to distal ureteric stones⁷.

Non-contrast computed tomography (NCCT) has replaced intravenous urography (IVU) as a primary diagnostic tool in acute renal colics due to its higher accuracy⁸⁻¹³. (Fig 2) It can also detect radiolucent stones, the stone density and stone-to-skin distance which are important parameters to determine the effectiveness of extra-corporal shock wave lithotripsy (ESWL). However, it carries a higher radiation dose with less information about the renal function and urinary collecting system

anatomy. If NCCT is planned, KUB radiography will not be necessary¹⁴.

Apart from imaging, basic laboratory investigations, including urine and blood tests are required. Urine tests includes urine white cells, red cells, nitrite, microscopy and culture. Blood tests include CBC, RFT, bone profile, urate and clotting profile if intervention is likely or planned. Stone analysis is also required if available. For high risk stone formers, more advanced metabolic workup including 24 hours urine for minerals is required ¹⁵.

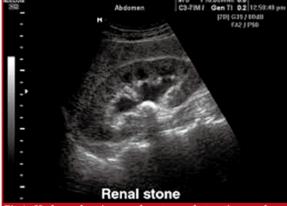


Fig 1. Hydronephrosis secondary to an obstructing renal stone at the ureteropelvic junction as shown by ultrasound examination



Treatment

As urosepsis due to obstructive stones can be fatal, it is very important to rule out and control sepsis. If



conservative treatment including fluid resuscitation and antibiotics fails, the obstructive system should be drained, either in the form of percutaneous nephrostomy (PCN) drainage or double-J (JJ) insertion. There are no significant differences in terms of the effectiveness and complications between these two methods 16-20. Definitive treatment of stone removal should be delayed till sepsis has subsided.

For pain control of ureteric colics, non-steroidal noninflammatory drugs (NSAIDs) have better analgesic efficacy with less recurrent pain. It should be the first drug of choice if renal function is normal²¹⁻²⁴. If the pain cannot be controlled medically, urinary drainage either in the form of PCN drainage or JJ insertion should be considered.

After ruling out associated urosepsis with adequate pain control and renal reserve, observation with periodic evaluation of ureteric stones <10mm is an optional initial treatment. Medical expulsive therapy using alpha-blockers (Tamsulosin) should be considered in such patients to facilitate passage of ureteric stones²⁵⁻²⁸. Patients should be followed-up around 4 weeks' time for progress. If the stones show no signs of passage, definite treatment, either in the form of ESWL or ureteroscopic lithotripsy (URSL) using a rigid ureteroscope or a flexible ureteroscope should be considered.

Renal stones should also be treated in cases of growth, obstruction, infection or pain. The treatment of choice depends on multiple factors: including stone size, position, density, patient's habitus and etc. ESWL is still a primary treatment option for renal stones <20mm. With the advancement of optical technology, retrograde intrarenal surgery (RIRS) using a flexible ureteroscope is increasingly used, particularly previously failed ESWL or contraindication to ESWL²⁹⁻³¹.

For renal stones >20mm, percutaneous nephrolithotripsy (PCNL) is the standard procedure. The standard access sheath is between 24-30Fr. Mini-PCNL using an access sheath <18Fr or even ultra mini-PCNL (<14Fr) have become popular, aiming to lower postoperative pain and shorten hospital stay. However, the benefits of mini-PCNL or ultra mini-PCNL is still controversial.³²⁻³³

Open surgery for urinary tract stones (Fig 3) has become a third-line procedure, which accounts for only 1-5% of total procedures for urinary stones.34-38 The indication is in complex urinary tract stones which are unlikely or failed to be cleared by either ESWL or endourological procedure. Laparoscopic or even robotic urological surgery is increasingly replacing open surgery due to advantages of minimally invasive surgery. With the advancement of the camera system and endowrist technology in robotic systems, it carries advantages in suturing and reconstruction like in ureterolithotomy or concomitant pyeloplasty³⁹⁻⁴¹.

Prevention

After stone clearance, it is important to give advice on dietary and lifestyle modifications to prevent stone recurrence. High fluid intake with 2.5-3L/day is recommended⁴². A balanced diet rich in vegetables and fibre, normal calcium content, limited protein

and sodium diet is advised. Adequate exercises and avoiding overweight are also important. For high risk stone formers, additional prophylaxis, which is usually pharmacological treatment is needed according to the stone and metabolic analysis. For example, alkaline citrate is used in alkalisation of urine, hypocitraturia and inhibition of calcium oxalate crystallisation.

Conclusion

Though stone disease is not a malignant disease, untreated ones can be life-threatening. With the advancement of lithotripsy technology, it gives a better stone clearance rate. However, stone clearance is not the end of the story; extra effort is needed to prevent stone clearance.



Fig 3. Open Nephrolithotomy for renal stone

References

- Stamatelou KK, Francis ME, Jones CA, et al. Time trends in reported prevalence of kidney stones in the United States: 1976-1994. Kidney Int 2003;63: 1817.
- Soucie JM, Thun MJ, Coates RJ, et al. Demographic and geographic variability of kidney stones in the United States. Kidney Int 1994;46:893. Lee YH, Huang WC, Tsai JY, et al. Epidemiological studies on the prevalence of upper urinary calculi in Taiwan. Urol Int 2002;68:172. Safarinejad MR. Adult urolithiasis in a populationbased study in Iran: prevalence, incidence, and associated risk factors. Urol Res 2007;35:73.
- Hesse A, Brandle E, Wilbert D, et al. Study on the prevalence and incidence of urolithiasis in Germany comparing the years 1979 vs. 2000. Eur Urol 2003 Dec;44(6):709-13. http://www.ncbi.nlm.nih.gov/pubmed/14644124
- Dec;44(6):709-13. http://www.ncbi.nlm.nih.gov/pubmed/14644124
 Strohmaier WL. Course of calcium stone disease without treatment. What can we expect? Eur Urol 2000 Mar;37(3):339-44.
 Varma G, Nair N, Salim A, et al. Investigations for recognising urinary stone. Urol Res 2009 Dec;37(6):349-52.
 Sourtzis S, Thibeau JF, Damry N, et al. Radiologic investigation of renal colic: unenhanced helical CT compared with excretory urography. AJR Am J Roentgenol 1999 Jun;172(6):1491-4. http://www.ncbi.nlm.nih.gov/pubmed/10350278
 Miller OF Rinear SK Poicked OR 1997 Miller OR 1997

- pubmed/I0350278
 Miller OF, Rineer SK, Reichard SR, et al. Prospective comparison of unenhanced spiral computed tomography and intravenous urogram in the evaluation of acute flank pain. Urology 1998 Dec;52(6):982-7. http://www.ncbi.nlm.nih.gov/pubmed/9836541
 Yilmaz S, Sindel T, Arslan G, et al. Renal colic: comparison of spiral CT, US and IVU in the detection of ureteral calculi. Eur Radiol 1998;8(2):212-7. http://www.ncbi.nlm.nih.gov//pubmed/9477267
 Niall O, Russell J, MacGregor R, et al. A comparison of noncontrast computerized tomography with excretory urography in the assessment of acute flank pain. J Urol 1999 Feb;161(2):534-7. http://www.ncbi.nlm.nih.gov//pubmed/9915442
 Wang IH. Shen SH. Huang SS. et al. Prospective comparison of unenhanced
- Wang JH, Shen SH, Huang SS, et al. Prospective comparison of unenhanced spiral computed tomography and intravenous urography in the evaluation of acute renal colic. J Chin Med Assoc 2008 Jan;71(1):30-6. http://www.ncbi. nlm.nih.gov/pubmed/18218557
- Shine S. Urinary calculus: IVU vs. CT renal stone? A critically appraised topic. Abdom Imaging 2008 Jan-Feb;33(1):41-3. http://www.ncbi.nlm.nih. gov/pubmed/17786506
- gov/pubmed/17/86506

 14. Kennish SJ, Bhatnagar P, Wah TM, et al. Is the KUB radiograph redundant for investigating acute ureteric colic in the non-contrast enhanced computed tomography era? Clin Radiol 2008 Oct;63(10):1131-5.

 15. Straub M, Strohmaier WL, Berg W, et al. Diagnosis and metaphylaxis of stone disease. Consensus concept of the National Working Committee on Stone Disease for the upcoming German Urolithiasis Guideline. World J Urol 2005 Nov;23(5):309-23.

- Ramsey S, Robertson A, Ablett MJ, et al. Evidence-based drainage of infected hydronephrosis secondary to ureteric calculi. J Endourol 2010 Feb;24(2):185-9. http://www.ncbi.nlm.nih.gov/pubmed/20063999
 Pearle MS, Pierce HL, Miller GL, et al. Optimal method of urgent decompression of the collecting system for obstruction and infection due to ureteral calculi. J Urol 1998 Oct;160(4):1260-4. http://www.ncbi.nlm.nih.gov/pubmed/9751331
 Uppot RN. Emergent nephrostomy tube placement for acute urinary obstruction. Tech Vasc Interv Radiol 2009 Jun;12(2):154-61. http://www.ncbi.nlm.nih.gov/pubmed/19853233
 Junch MF Anson KM Patel III Percutaneous penhrostomy and uratoric
- Lynch MF, Anson KM, Patel U. Percutaneous nephrostomy and ureteric stent insertion for acute renal deobstruction. Consensus based guidelines. Br J Med Surg Urol 2008 Nov;1(3):120-5. http://www.bjmsu.com/article/S1875-9742(08)00095-5/abstract
- 9742(08)00095-5/abstract
 Mokhmalji H, Braun PM, Portillo FJ, et al. Percutaneous nephrostomy versus ureteral stents for diversion of hydronephrosis caused by stones: A prospective, randomized clinical trial. J Urol 2001 Apr;165(4):1088-92.
 Ramos-Fernandez M, Serrano LA. Evaluation and management of renal colic in the emergency department. Bol Asoc Med P R 2009 Jul-Sep;101(3):29-32. http://www.ncbi.nlm.nih.gov/pubmed/20120983
 Engeler DS, Schmid S, Schmid HP. The ideal analgesic treatment for acute renal colic--theory and practice. Scand J Urol Nephrol 2008;42(2):137-42. http://www.ncbi.nlm.nih.gov/pubmed/17899475
 Cohen E, Hafner R, Rotenberg Z, et al. Comparison of ketorolac and

- Cohen E, Hafner R, Rotenberg Z, et al. Comparison of ketorolac and diclofenac in the treatment of renal colic. Eur J Clin Pharmacol 1998
- Cohen E, Hafner R, Rotenberg Z, et al. Comparison of ketorolac and diclofenac in the treatment of renal colic. Eur J Clin Pharmacol 1998 Aug;54(6):455-8. http://www.ncbi.nlm.nih.gov/pubmed/9776434
 Shokeir AA, Abdulmaaboud M, Farage Y, et al. Resistive index in renal colic: the effect of non-steroidal anti-inflammatory drugs. BJU Int 1999 Aug;84(3):249-51. http://www.ncbi.nlm.nih.gov/pubmed/10468715
 Lojanapiwat B, Kochakarn W, Suparatchatpan N, et al. Effectiveness of low-dose and standard-dose tamsulosin in the treatment of distal ureteric stones: A randomized controlled study. J Int Med Res 2008 May-Jun;36(3):529-36. http://www.ncbi.nlm.nih.gov/pubmed/188334135
 Wang CJ, Huang SW, Chang CH. Efficacy of an alpha1 blocker in expulsive therapy of lower ureteral stones. J Endourol 2008 Jan;22(1):41-6. http://www.ncbi.nlm.nih.gov/pubmed/18315472
 Kaneko T, Matsushima H, Morimoto H, et al. Efficacy of low dose tamsulosin medical expulsive therapy for ureteral stones in Japanese male patients: a randomized controlled study. Int J Urol 2010 May;17(5):462-5. http://www.ncbi.nlm.nih.gov/pubmed/20202002
 Al-Ansari A, Al-Naimi A, Alobaidy A, et al. Efficacy of tamsulosin in the management of lower ureteral stones: a randomized double-blind placebocontrolled study of 100 patients. Urology 2010 Jan;75(1):4-7.
 Wendt-Nordahl G, Mut T, Krombach P, et al. Do new generation flexible ureterorenoscopes offer a higher treatment success than their predecessors? Urol Res 2011 Jun;39(3):185-8. http://www.ncbi.nlm.nih.gov/pubmed/21052986

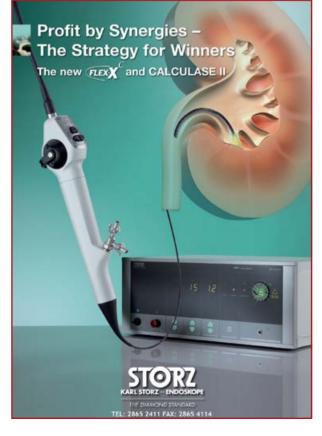
- pubmed/21052986

- Knudsen B, Miyaoka R, Shah K, et al. Durability of the next-generation flexible fiberoptic ureteroscopes: a randomized prospective multi-institutional clinical trial. Urology 2010;75(3):534-8. http://www.ncbi.nlm. nih.gov/pubmed/19854494
- Skolarikos AA, Papatsoris AG, Mitsogiannis IC, et al. Current status of ureteroscopic treatment for urolithiasis. Int J Urol 2009 Sep;16(9):713-7.
- 32. Mishra S, Sharma R, Garg C, et al. Prospective comparative study of miniperc and standard PNL for treatment of 1 to 2 cm size renal stone. BJU Int 2011 Sep;108(6):896-9; discussion 899-900. http://www.ncbi.nlm.nih.gov/pubmed/21477212
- Knoll T, Wezel F, Michel MS, et al. Do patients benefit from miniaturized tubeless percutaneous nephrolithotomy? A comparative prospective study. J Endourol 2010 Jul;24(7):1075-9. http://www.ncbi.nlm.nih.gov/ pubmed/20575685
- publicu/203/3063

 4. Assimos DG, Boyce WH, Harrison LH, et al. The role of open stone surgery since extracorporeal shock wave lithotripsy. J Urol 1989 Aug;142(2 Pt 1):263-7. http://www.ncbi.nlm.nih.gov/pubmed/2746742

 5. Segura JW. Current surgical approaches to nephrolithiasis. Endocrinol Metab Clin North Am 1990 Dec;19(4):919-35. http://www.ncbi.nlm.nih.gov/pubmed/2081519
- Honeck P, Wendt-Nordahl G, Krombach P, et al. Does open stone surgery still play a role in the treatment of urolithiasis? Data of a primary urolithiasis center. J Endourol 2009 Jul;23(7):1209-12. http://www.ncbi.nlm.nih.gov/ pubmed/19538063
- Bichler KH, Lahme S, Strohmaier WL. Indications for open stone removal of urinary calculi. Urol Int 1997;59(2):102-8. http://www.ncbi.nlm.nih.gov/ pubmed/9392057
- Paik ML, Resnick MI. Is there a role for open stone surgery? Urol Clin North Am 2000 May;27(2): 323-31. http://www.ncbi.nlm.nih.gov/pubmed/10778474 Hruza M, Zuazu JR, Goezen AS, et al. Laparoscopic and open stone surgery. Arch Ital Urol Androl 2010 Mar;82(1):64-71. http://www.ncbi.nlm.nih.gov/pubmed/20593725
- El-Feel A, Abouel-Fettouh H, Abdel-Hakim AM. Laparoscopic transperitoneal ureterolithotomy. J Endourol 2007 Jan;21(1):50-4. http://www.ncbi.nlm.nih.gov/pubmed/17263607
 Mufarrij PW, Woods M, Shah OD, et al. Robotic dismembered pyeloplasty: a 6-year multi-institutional experience. J Urol 2008;180(4):1391-6.
 Borghi L, Meschi T, Amato F, et al. Urinary volume, water and recurrences in individual statements.
- idiopathic calcium nephrolithiasis: a 5-year randomized prospective study. J Urol 1996 Mar;155(3):839-43. http://www.ncbi.nlm.nih.gov/pubmed/8583588





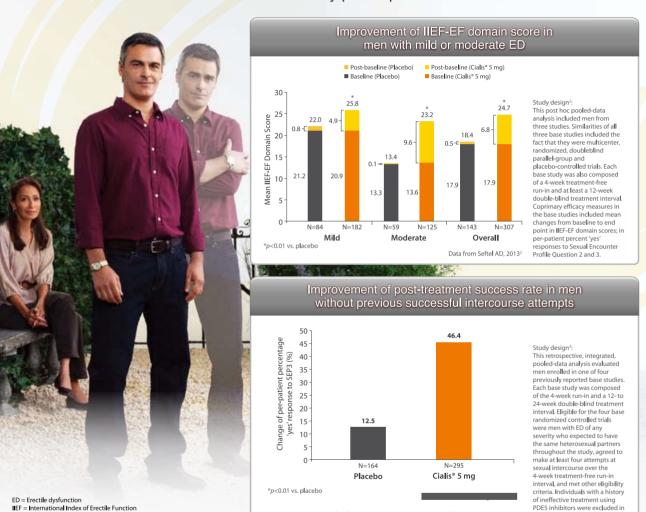


Once Daily Cialis® 5 mg

Enjoy the sex at every RIGHT moment

5 mg for once daily use

- Effective anytime during the course of treatment upon sexual stimulation¹
- Significantly improves sexual function in men with different ED severity^{2,3}
- ✓ Tolerability profile proven²



SEP = Sexual Encounter Profile

Indications: Treatment of Erectile dysfunction in adult males. Dosage Forms and strengths: 5mg, 10mg and 20mg film-coated tablet. Dosage and administration: Recommended dose: 10 mg, may be increased to 20 mg if 10 mg dose not produce adequate response. Taken at least 30 min prior to sexual activity. Patients who anticipate frequent use 5mg once daily at approx the same time daily may be decreased to 2.5 mg. Max dose frequency: Once daily. Contraindications: Concomitant use with organic nitrates. Men with cardiac diseases for whom sexual activity is inadivisable. Patients who have loss of vision in 1 eye caused by non-artertic arterior ischemic optic neuropathy. Special Precautions: Medical history & physical exam prior to treatment. Consider CV status of patient. Discontinue in case of sudden visual defect. Severe renal & hepatic insufficiency. Priapism predisposing conditions. Anatomical penile deformation. Concomitant w/ at-blockers & other treatments for erectile dysfunction. Patients on potent CYP34A inhibitor therapy. Galactose intolerance, Lapp lactase deficiency or glucosegalactose malabsorption. Not indicated in women. May impair ability to drive or operate machinery. Adverse Reactions: Headache, dyspepsia. Dizziness, palpitations, flushing, nasal congestion, abdominal & back pain, gastrooesophageal reflux, myalgia. Drug Interactions: Plasma concentration increased by ketoconazole, ritonavir, saquinavir, erphromycin, darithromycin, itraconazole, grapefruit juice & reduced by rifamplicin, phenobarb, phenytoin, carbamazepine. Doxazosin, theophylline. Note: Please see Important Safety Information in the full prescribing information.

SEP3: "Did your erection last long enough for you to have successful intercourse?"

References: 1. Mikhail N., Management of erectile dysfunction by the primary care physician. Cleve Clin J Med. 2005; 72: 293-294, 296-297, 301-305 passim. 2. Sefted AD, Shinghal R, Kim ED, et al. Retrospective analysis of the efficacy and safety of once-daily tadalafil in patient subgroups: men with mild vs moderate ED and agent as in L1 Impot Res. 2013;25:91-98. 3. Shabsigh R, Seftel AD, Kim ED, et al. Efficacy and safety of once-daily tadalafil in men with erectile dysfunction who reported no successful intercourse attempts at baseline. J Sex Med. 2013;10:844-856.

Further information is available on request at Eli Lilly Asia, Inc.

IIEF-EF = International Index of Erectile Function - Erectile Function domain

Eli Lilly Asia, Inc.

Unit 3203-3208, 32/F ACE Tower, Windsor House, 311 Gloucester Road, Causeway Bay, Hong Kong Tel: (852) 2572 0160 Fax: (852) 2572 7893 www.lilly.com.hk



each base study.

Nephron Sparing Surgery for Small Renal Masses

Dr Wing-hang AU

MBBS, FCSHK, FHKAM(Surgery), FRCS(Urology)(Edin) Consultant and Head, Division of Urology, Department of Surgery, Queen Elizabeth Hospital

Dr Chi-fai KAN

MBBS, FCSHK, FHKAM(Surgery), FRCS(Urology)(Edin)
Associate Consultant, Division of Urology, Department of Surgery, Queen Elizabeth Hospital

Dr Chi-man NG

MBBS, MRCS(Edin)

Resident, Division of Urology, Department of Surgery, Queen Elizabeth Hospital







r Wing-hang AU

r Chi-fai KAN

Dr Chi-man NG

Introduction

Kidney cancer has the crude incidence of 9.6 /100,000 in Hong Kong in 2010¹. However with the increasing use and the advancement of modern imaging modalities, more renal masses are diagnosed nowadays, especially small renal masses which are <= 4cm in size²³ (see Figure 1). With better understanding on the natural history of small renal masses and technical advancements, there are rapidly emerging modalities of treatment options for small renal masses⁴. Nephron-sparing surgery is the main stay of treatment for small renal masses in patients who are surgically fit for operation⁵ contemporarily.



Figure 1. Right renal mass incidentally detected from CT scan.



Figure 2. The specimen photo of clear cell RCC which was cut open.

Natural history of small renal masses and their presentation

From the retrospective review of 2,935 nephrectomy specimens in the Mayo Clinic, renal masses which were \geq 2cm had a chance of malignancy of up to $78\%^7$. These renal masses, despite pathologically malignant, were usually slow growing. The mean growth rate was 0.28cm/ year with a mean follow up time of 30 months, and the chance of metastasis was 1% only6. On the other hand, the lack of growth did not correlate with the benign pathology⁸. Most of the small renal masses were found incidentally when the imaging studies are performed for other indications9. Incidental detections accounted for more than 50% of renal cell carcinoma cases, and these tumours were more likely to be organ confined and associated with a better prognosis 10,11. The classic triad of flank pain, gross haematuria and a palpable abdominal mass is now uncommon and indicates advanced disease10.

Pathology

The most common malignant pathology is renal cell carcinoma(RCC), with clear cell RCC being the commonest, followed by papillary, chromophobe and collecting duct types¹² (Figure 2). Sarcomatoid features can be present in all histologic subtypes and indicate a poor prognosis^{13,14}. Possible benign pathologies are angiomyolipoma and oncocytoma¹².

Why nephron-sparing surgery is preferred over radical nephrectomy for small renal masses?

Although technically it is more challenging in nephronsparing surgery when comparing with radical nephrectomy, there are clear advantages for choosing nephron-sparing surgery, including:

1. Oncological outcome equivalent to radical nephrectomy for small renal mass with good long-term survival

Studies with data from Mayo Clinic and Memorial Sloan Kettering Cancer Center revealed equivalent oncological outcomes with radical nephrectomy and partial nephrectomy for renal tumour <7cm, in terms of recurrence free survival, cancer specific survival and overall survival¹⁵⁻¹⁷. The 5-year cancer specific survival was 95-99%. There was also a randomizsed controlled



study from EORTC showed no difference in overall survival for patients who had RCC and underwent radical nephrectomy or nephron-sparing surgery¹⁹. A minimal surgical margin clear of malignancy was proven to be adequate for equivalent oncological outcomes¹⁸.

2. Better preservation of renal function

The 3-year probability of new chronic disease decreased from 65% in radical nephrectomy to 20% if nephronsparing surgery was chosen²⁰. From the SEER database, nephron-sparing surgery was found to have less renal morbidity (16% vs 21%) in terms of dialysis, dialysis related surgery or renal transplant²¹. Radical nephrectomy, with a greater loss of post-operative renal function, had a higher risk of overall mortality (HR 1.38) and had 1.4 times of cardiovascular events when compared with nephron-sparing surgery²². Nephronsparing surgery is clearly important in those patients with absolute indications (anatomically or functionally anephric after radical nephrectomy) and relative indications (multiple focal tumours, at high risk of recurrence and with background diseases which may affect future renal function).

3. Chance of the renal mass to be benign in nature Though the chance of malignancy is up to 78% for size>=2cm contrast enhancing masses found on CT, there was~20% chance that these lesions were benign. Radical nephrectomy may over-treat these lesions with a major loss of renal function for a kidney harbouring benign tumour.

4. Complications of nephron-sparing operation was not excessively higher than radical nephrectomy. Partial nephrectomy, compared with radical nephrectomy, requires haemostasis of the raw surface after resecting the tumour and repairing the collecting system. In high volume centres, the risk of post-operative haemorrhage and urine leakage were 2.1% and 1.7% respectively²³, which was not excessively higher than radical nephrectomy.

Operative approaches

Laparoscopic partial nephrectomy has been more popular in these years, with equivalent functional outcome, oncological outcome and shorter hospital stay when compared with open partial nephrectomy²⁴. However it can be associated with an increased risk of major urologic complications and longer warm ischaemic times. Therefore it has been limited to centres with available expertise and careful case selection²⁴. Robot-assisted laparoscopic partial nephrectomy has emerged in recent years after the launch of the Da Vinci System. It is feasible and safe, but its long-term outcomes are pending²⁵. The open approach is still the preferred approach for complex cases such as tumours in the renal hilum, tumuors in a solitary kidney or multiple tumours, which has a lower complication rate and can achieve a shorter warm ischaemic time²⁶.

Conclusion

Small renal masses are more commonly diagnosed nowadays due to the advancement of modern imaging modalities. Nephron-sparing surgery for small renal masses is the contemporary treatment of choice. In selected cases, minimally invasive surgery has an emerging role for selected cases, which allows better convalescence.

References

- Hospital Authority: Hong Kong Cancer Registry web site. www3. ha.org.hk/cancereg/statistics.html
- Linehan JA, Nguyen MM. Kidney cancer: the new landscape. CurrOpin Urol. 2009 Mar;19(2):133-7. doi: 10.1097/ MOU.0b013e328323f5ab.
- Mathew A, Devesa SS, Fraumeni JF, Jr., and Chow WH: Global increases in kidney cancer incidence, 1973-1992. Eur J Cancer prev 2002: 11: 171.
- Paul Russo. Partial nephrectomy for renal cancer: Part I. BJUI. Volume 105, Issue 9, pages 1206–1220, May 2010
- Ljungberg B, et al. Guidelines on renal cell carcinoma. European Association of Urology 2013
- Chawla SN, Crispen PL, Hanlon AL et al. The natural history of observed enhancing renal masses meta-analysis and review of the world literature. J Urol 2006; 175: 425–31
- Frank, et al. Solid renal tumours: an analysis of pathological features related to tumour size. J Urol 2013;170:2217-2220
- Kunkle DA. Clinical characteristics of enhancing renal masses which do not demonstrate interval growth. J Urol 2007
- 9. Novick AC, et al. American Urological Association Guideline 2010
- 10. Jayson M, and Sanders H: Increased incidence of serendipitously discovered renal cell carcinoma. Urology 1998; 51: 203.
- Luciani LG, Cestari R, and Tallarigo C. Incidental renal cell carcinoma

 age and stage characterization and clinical implications: study of 1092 patients (1982-1997). Urology 2000; 56: 58.
- Silver DA, Morash C, Brenner P, et al. Pathologic Findings at the time of nephrectomy for renal mass. Ann SurgOncol1997; 7: 570–4
- Cheville JC, Lohse CM, Zincke H, et al: Sarcomatoid renal cell carcinoma: an examination of underlying histologic subtype and an analysis of associations with patient outcome. Am J SurgPathol 2004; 28: 435.
- de Peralta-Venturina M, Moch H, and Amin M. Sarcomatoid differentiation in renal cell carcinoma: a study of 1010 cases. Am J SurgPathol 2001; 25: 275.
- 15. Lee CT, Katz J, Shi WW, et al. Surgical management of renal tumors of 4 cm or less in a contemporary cohort. J Urol2000; 163: 730–6 48
- Lessage K, Joniau S, Fransis K, Van Poppel H. Comparison between open partial and radical nephrectomy for renal tumours: perioperative outcome and health-related quality of life. EurUrol2007; 51: 614–20
- Thompson HR, Siddiqui S, Lohse CM, et al. Evaluation of partial versus radical nephrectomy for renal cortical tumors 4–7 cm. J Urol2009; 182: 2601–6
- Yossepowitch O, Thompson HR, Leibovich BC et al. Positive margins at partial nephrectomy: predictors and oncologic outcomes. J Urol2008; 179: 2152–7
- Van Hoppel H, et al. A prospective randomised EORTC intergroup phase 23 study comparing the oncologic outcome of elective nephronsparing surgery and radical nephrectomy for low-stage renal cell carcinoma. EurUrol 2011. 59(4):543-52
- Huang WC, Levey AS, Serio AM et al. Chronic kidney disease after nephrectomy in patients with renal cortical tumors: a retrospective cohort study. Lancet Oncol2006; 7: 735–40
- Miller DC, et al. Renal and cardiovascular morbidity after partial or radical nephrectomy. Cancer 2008; 112(3):511-20
- Huang WC, Elkin EB, Levey AS, et al. Partial nephrectomy versus radical nephrectomy in patients with small renal tumors-is there a difference in mortality and cardiovascular outcomes. J Urol2009; 181: 55–62
- Gill IS, Kamoi K, Aron M, Desai MM. 800 laparoscopic partial nephrectomies: a single surgeon series. J Urol 2010;183(1): 34-42
- Lane BR, Campbell SC, Gill IS. 10-year oncologic outcomes after laparoscopic and open partial nephrectomy. J Urol 2013;190(1)44-9
- Bi L, Zhang C, Li K, et al. Robotic Partial Nephrectomy for Renal Tumors Larger than 4 cm: A Systematic Review and Meta-analysis. PLoS One. 2013 Oct 8;8(10):e75050
- Brian R. Lane, Andrew C. Novick, Denise Babineau, et al. Comparison of Laparoscopic and Open Partial Nephrectomy for Tumor in a Solitary Kidney. J Urol. Volume 179, Issue 3, March 2008, Pages 847– 852

Haematuria, Its Implications and Necessary Investigations

Dr Steve WH CHAN

Asso Director, Urology Centre, Hong Kong Sanatorium & Hospital



Dr Steve WH CHAN

Introduction

Haematuria is classified into microscopic haematuria or gross haematuria according to the presence of noticeable red colour in the urine. Gross haematuria is the condition of visible blood in urine while microscopic haematuria denotes the detection of blood in urine only on laboratory test. The definition of asymptomatic microscopic haematuria (AMH) according to the Americam Urological Association (AUA) 2012 guidelines¹⁰ is defined as three or more red blood cells (RBC) per high powered field (HPF) on a properly collected urinary specimen in the absence of an obvious benign cause. A positive dipstick for blood in the urine indicates either haematuria, haemoglobinuria or myoglobinuria and a microscopic examination of the centrifuged urine readily establishes the diagnosis.

Clinical presentation of haematuria

Most microscopic haematuria is not painful or noticeable. Most of the time it was detected on urine tests either by microscopy or by dipstick test. Gross haematuria can appear as obvious bloody urine, or sometimes as tea-coloured urine or cloudy urine. Pain may or may not be associated with the presence of blood.

Differential diagnosis

Haematuria may reflect either significant nephrological or urological diseases. It is important to differentiate between the two categories as the line of investigations for nephrological and urological diseases are very different. The hallmarks of nephrological diseases causing haematuria include the presence of dysmorphic red blood cells, red blood cell casts and proteinuria. Haematuria of nephrological origin is frequently associated with casts in the urine and almost always associated with significant proteinuria. Even significant haematuria of urological origins will not elevate the protein concentration in the urine into the 100 to 300mg/dl or 2+ to 3+ range on dipstick, and proteinuria of this magnitude almost always indicates glomerular or tubulo-interstitial renal disease.

Urology lesions that can account for haematuria can again be categorised into malignant and benign diseases. Any malignancies in the urinary tract e.g. bladder cancer, upper tract urothelial tumours, renal cancers or prostate cancers should be considered as potential reasons for the haematuria. Many benign conditions of the urinary

tract e.g. benign prostatic enlargement in men, urinary tract infection, urolithiasis and trauma can also be the commoner causes.

Gross haematuria

Gross haematuria is commonly encountered in urology practice. It accounts for 13% in a Japanese urologic outpatient attendance and 10% of all after-hours telephone calls received by residents from outpatients and the emergency room. 1,2 In particular, when compared to microscopic haematuria, it is more alarming in terms of its noticeability to the patients as well as the risk of more sinister underlying pathologies such as urological malignancies, urinary stones or urinary tract infection. In fact, some reports about the presence of significant urology lesions in 50% patients and urological cancer in patients with gross haematuria up to 18 to 24%3,4,5 and therefore, early thorough investigation is warranted in patients presenting with visible or gross haematuria^{6,8}. Urologists like to further categorise the gross haematuria into painful or painless haematuria, with the assumption that stones and urinary tract infections are usually painful, in contrast to malignancies which usually give rise to painless haematuria. However, it is also well known that urinary stones or even infections can be silent and bladder cancers especially carcinomas-in-situ can present with serious irritating symptoms like pain and frequency as well.

A recent study on a large cohort of patients [n=1804] investigated with a standard protocol of urine cytology, USG and IVU/ CTU and flexible cystoscopy with a median follow up of 6.6 years showed 21.4% patients had malignant urological diseases, mostly due to bladder tumours [18%] followed by renal tumours [2.2%] and less commonly upper tract TCC [0.4%]. Common benign lesions accounting for the bleeding included large bleeding prostates [13.4%] and UTI & cystitis [2%] and urinary tract stones [7.5%]. No pathology was found in 53.5% according to this investigation protocol⁷.

While there is little dispute about the necessity for a thorough investigation in patients with gross haematuria, there is a paucity of information about what to do with the patients with initial negative investigations and the subsequent follow ups. The same study reported 11.6% of patients with recurrent gross haematuria despite negative initial investigations had a malignant pathology and therefore full investigations were warranted in patients with recurrent haematuria after 1 year.⁷



Microscopic haematuria

With the improvement in health consciousness in the general population, more people are receiving an urinalysis as a cheap and common screening test in most check-up programmes. The detection of microscopic haematuria, as defined above is very common even among asymptomatic, healthy individuals at 20%9 Contrary to gross haematuria, the frequency of serious urological disease in patients with asymptomatic microscopic haematuria $\hat{i}s$ as low as 0.5% to $5\%^{10,11,12}$. The common aetiologies of microscopic haematuria include benign prostatic enlargement, infection and calculi. Urological malignancies, although not very common in this group of patients still have to be excluded. The common risk factors for the occurrence of malignancies include the male gender, age >35 years, past or current smoking, occupational or other exposure to chemicals or dyes and analgesics abuse in addition to a history of gross haematuria, urologic disorder or disease, chronic urinary tract infection, exposure to known carcinogenic agents or chemotherapy, such as alkylating agents and a chronic indwelling foreign body. 10

According to the AUA 2012 guidelines¹⁰, asymptomatic microhaematuria is defined as three or more RBCs per high power filed on a properly collected urinary specimen in the absence of an obvious benign cause. A positive dipstick does not define AMH, and evaluation should be based solely on findings from microscopic examination of urinary sediment and not on a dipstick reading. A positive dipstick reading merits microscopic examination to confirm or refute the diagnosis of AMH. Patients who have positive dipstick tests should have three additional repeat tests. If at least one of the repeat tests is positive on microscopy, then a work-up should be undertaken¹⁰. However, according to studies, ^{13,14} a significant proportion of patients with microscopic haematuria were not referred for a thorough urological examination. The reasons were likely attributed to the knowledge that the risk of malignancy in this group of patients was not very high and the subsequent investigations were costly.

The work-up should begin with a detailed history taking and physical examination, renal function estimation and to look for evidence suggestive of nephrogenic cause of the microscopic haematuria like the findings of dysmorphic RBC, proteinuria, cellular casts and or renal insufficiency. Should the possible benign causes [infection, menstruation, vigorous exercise, medical renal disease, viral illness, trauma or recent urological procedures] of microscopic haematuria be ruled out then a urological evaluation should be initiated¹⁰. The work-up should include a cystoscopy for patients older than 35 years old and for all patients who present with risk factors for urinary tract malignancies (e.g. irritating voiding symptoms, current or past tobacco use, chemical exposures), regardless of age. The AUA also recommended investigation of the upper urinary tract with a CT Urogram as the imaging procedure of choice¹⁰.

In the past, urine cytology and in some centres urine markers for bladder cancer (e.g. NMP22, BTA) have been part of the urology evaluation protocol for patients with microscopic haematuria. However due to the variable specificities and sensitivities of these tests, they are not recommended as part of the routine investigations in microscopic haematuria patients, and are considered only in patients with persistent microscopic haematuria with negative work-up or those at risk for carcinomain-situ (i.e. irritating voiding symptoms, current or past tobacco use, chemical exposures). Io In view of the disappointing performance of the above urine markers, there have been newer efforts for development of better markers. A recent study identified a panel of microRNAs with a high sensitivity for bladder cancer and in another report a Multi- analyte assay that stratified patients with haematuria into high or low risk.

Despite the AUA recommendations, it is also well known that many patients who have undergone the full investigations have negative results. A large scale recent prospective cohort on 2630 patients detected 2.1% patients with malignancies and a few risks factors were identified to formulate the Haematuria Risk Index: age more than 50 years old, male sex, smoking history and the degree of microscopic haematuria¹⁵. Although this index or similar approaches are not standard management nowadays, hopefully with more information from the researches, the initiation of the investigations can be more individualised in the future.

What to do after the initial negative urological evaluation is also tricky for many urologists and general practitioners. The basic principle is the finding of microscopic haematuria with negative initial evaluation can represent the absence of urological/ nephrological disease, but there exists a possibility that there is an urological lesion at its very early developing stage that could not be detected by the initial investigations. Therefore the AUA recommended yearly urinalysis for this group of patients, especially for those who have high risk factors for urinary tract malignancies. If the annual urinalyses are negative for two consecutive years then the patients could be discharged. But repeating the evaluation might be necessary within three to five years and should be considered for those who are found to have persistent microscopic haematuria on the yearly follow urinalysis.¹⁰

Conclusion

The presence of haematuria, both microscopic and gross haematuria often indicates the presence of significant urological diseases. There is little dispute that all the patients with gross haematuria need thorough investigations. The general recommendation for microscopic heamaturia is still complete investigation for most of the patients. However, hopefully with more progress in the knowledge and technology, urologists can select out those who are more at risk for investigation and spare most of the others to save the time and cost for the patients and the society.

References

- Iwata S, Ogawa Y, Sugiyma Y, et al. Statistical study of outpatients with hematuria. Hinyokika Kiyo. 1985; 31: 1989-1994.
- Stoffel JT, Moinzadeh A, Hansen M. Identification of common themes from after-hour telephone calls made to urology residents. Urology. 2003: 62: 618-621.
- Edwards TJ, Dickinson AJ, Natale S et al. A prospective analysis of the diagnostic yield resulting from the attendance of 4020 patients at a protocol-driven haematuria clinic. BJU Int 2005; 97:301.

- Alishahi S, Byrne D, Goodman CM et al. Haematuria investigation based on a standard protocol: emphasis on the diagnosis of urological malignancy. J R Coll Surg Edinb 2002; 47: 422.
- Khadra MH, Pickard RS, Charlton M et al. A prospective analysis of 1930 patients with hematuria to evaluate current diagnostic practice. J Urol 2000; 163: 524.
- Buntinx F, Wauters H. The diagnostic value of macroscopic haematuria in diagnosing urological cancers: a meta-analysis. Fam Pract 1997; 14: 63.
- Minshriki SF, Vint R, Somani BK. Half of visible and half of recurrent visible hematuria cases have underlying pathology: prospective large cohort study with long-term followup. J Urol 2012; 187: 1561-1565.
- Minshriki SF, Grimsley SJ and Nabi G. Incidence of recurrent frank hematuria and urological cancers: prospective 6.9 years of followup. J Urol 2009; 182: 1294.
- Grossfeld G, Wolf JS Jr, Litwan MS et al. Asymptomatic microscopic hematuria in adults: survey of the AUA best practice policy recommendations. Am Fam Physician 2001; 63: 1145-1154.
- Davis R, Jones JS, Barocas DA et al. Diagnosis, evaluation and follow up of asymptomatic microhematuria (AMH) in adults: AUA guideline. J Urol 2012; 188: 2473-2381.
- Mohr DN, Offord KP, Owen RA et al. Asymptomatic microhematuria and urologic disease: a population based study. JAMA 1986; 256: 224-229.

- 12. Cohen RA, Brown RS. Microscopic hematuria. N Engl J Med 2003; 348: 2330-2338.
- 13. Nieder AM, Lotan Y, Nuss GR, et al. Are patients with hematuria appropriately referred to urology? A multi institutional questionnaire based survey. Urol Oncol 2010; 28: 500-503.
- Elias K, Svatek RS, Gupta S, Ho R, Lotan Y. High risk patients with hematuria are not evaluated according to guideline recommendations. Cancer 2010: 116: 2954-2955.
- Loo RK, Lieberman SF, Slezak JM et al. Stratifying risk of urinary tract malignant tumors in patients with asymptomatic microscopic hematuria. Mayo Clin Proc. 2013; 88: 129-138.
- Miah S, Dudziec E, Drayton RM et al. An evaluation of urinary microRNA reveals a high sensitivity for bladder cancer. Br J Cancer 2012; 107: 123-128.
- Kames RJ, Fernandez CA, Shuber AP. A noninvasive multianalyte urine based diagnostic assay for urothelial cancer of the bladder in the evaluation of hematuria. Mayo Clin Proc. 2012; 87: 835-842.



Dermatological Quiz

Dermatological Quiz

Dr Lai-yin CHONG

MBBS(HK), FRCP(Lond, Edin, Glasg), FHKCP, FHKAM(Med)
Private dermatologist



Dr Lai-yin CHONG



Fig.1: Greasy erythematous scaly lesions at seborrhoeic area of face

This middle aged man had mildly pruritic greasy scaly skin rash at the face and scalp for six months. The lesions were mainly distributed at both nasolabial folds, the nose, gabella and forehead (Fig.1). He was treated by a general practitioner with topical combined preparation of hydrocortisone and miconazole cream, ketoconazole shampoo and oral loratadine. However the skin lesions did not respond to treatment and became worse. His past health was good and family history was insignificant.

Questions:

- 1. What was the preliminary diagnosis of the general practitioner as judged from his treatments?
- 2. What is the correct diagnosis?
- 3. How do you differentiate between these two diseases?
- 4. How do you treat the face and scalp of this patient?

(See P. 32 for answers)





8 Days Bordeaux, Vineyards & Châteaux (Bordeaux to Bordeaux)

Discover the douceur de vivre, or sweetness of life, that is quintessential Bordeaux.

- · 7-night cruise on River Royale
- All meals and unlimited beverage onboard
- Entertainment onboard
- 7 excursions
- Onboard gratuity
- Local transfer

Departure Date: Mar - Nov 2014



UNIWERLD HKSZZZ

(Cruise Only per person)

Uniworld Boutique River Cruise 2014 New Super Ship 8 Days Burgundy & Provence (Avignon to Lyon)



Walk through the lands that inspired Van Gogh, Cézanne, and Gauguin. History buffs, gastronomes, and wine connoisseurs.

- 7-night cruise on S.S. Catherine
- All meals and unlimited beverage onboard
- Entertainment onboard
- 8 excursions
- · Onboard gratuity
- Local transfer

Departure Date: Apr - Nov 2014



UNIWORLD.

Luftner Cruises 5 stars Austrian river cruise

13 Days Best of Europe (Nuremberg-Budapest)



The cruise begins in Nuremberg and goes through the Rhine-Main-Danube canal.

- · 2 nights hotel in Berlin
- 1 nights hotel in Dresdenin
- 2 nights hotel in Prague
- 7-night cruise on M/S Amadeus Brilliant
- Unlimited wine in dinner
- Entertainment onboard
- Port charge

Departure Date: Jun, Jul & Nov 2013



(Cruise Only per person)



9 Days Norway Classic Voyages - Northern Light Hunting Package (Bergen to Kirkenes)



Experience the Northern Lights above the arctic circle in fantastic winter.

- · Roundtrip air ticket between Hong Kong and Bergen/ Kirkenes
- 7-night cruise on MS Polarly
- 1 nights Hotel in Kirkenes
- · All meals onboard

Departure Date: 02 Feb 2014

A-ROSA River Cruises 8 Days Rhine North (Cologne to Cologne)



A-ROSA Cruises - Escape The Ordinary

- 7-night cruise on A-ROSA Silva
- Open Bar
- Gratunities Shore excrusions
- Port taxes & fees

Departure Date: 26-Apr 2014



arosa-

Hotline: 3678 2080 Email: cruise@jebsentravel.com Website: www.cruisesensations.com.hk Address: 29/F Island Place Tower, 510 King's Road, North Point, Hong Kong Licence No.: 352575

Erectile Dysfunction: An Under-recognised Condition in Hong Kong

Dr Ada NG

Associate Consultant, Division of Urology, Department of Surgery, Tung Wah Hospital/ Queen Mary Hospital



Dr Ada NG

Introduction

Erectile dysfunction (ED) is defined as the persistent inability to attain and maintain an erection sufficient to permit satisfactory sexual performance.¹

Higher rates of reporting, diagnosis and treatment of ED have been seen since the 1990s due to increasing awareness of effective treatment strategies, advertisement from pharmaceutical companies and awareness of the association between ED and cardiovascular diseases (CVD).

Over the past quarter century, the clinical management of erectile dysfunction has changed remarkably, from mostly empirical treatments such as psycho-analysis, sex therapy and endocrine treatment to the prescription-only oral PDE5 inhibitors (phosphodiesterase type 5) and surgically implanted penile prosthesis.²

This article aims to give the general practitioner a review of the prevalence, aetiology, workup and treatment of erectile dysfunction.

Prevalence

Epidemiological data have shown a high prevalence and incidence of ED worldwide. The first large, community-based study of ED was the Massachusetts Male Aging Study (MMAS)³. The study reported an overall prevalence of 52% ED in non-institutionalised 40-70-year-old men in the Boston area; specific prevalence for minimal, moderate, and complete ED was 17.2%, 25.2%, and 9.6%, respectively. Another population-based study in the United States found the age-specific prevalence rates for "trouble maintaining or keeping an erection" to be 9%, 11%, and 18% for age groups 30-39, 40-49, and 50-59 respectively. The reported overall prevalence of ED was 36.7% in a questionnaire interview of 1506 Hong Kong males of age 26 to 70 year old.⁵

Physiology of erectile response

Erection is a complex process involving integration of psychological, neurological, endocrine, vascular and local anatomic systems. Caversonal artery smooth muscle relaxation is an active process that is the initial event of an erection. Parasympathetic nerves release nitric oxide, leading to increased cyclic GMP (cGMP), decreased intracellular calcium, and greater smooth muscle relaxation. This in turn leads to arterial dilatation, increased penile blood flow, increased

intracaversonal pressure and sinusoid expansion. Increased arterial inflow combined with increased venous outflow resistance further leads to full erection.⁶

Aetiology & Risk factors

ED is called the harbinger of life-threatening cardiovascular events. Studies have shown that more than two-thirds of men with hypertension had ED; nearly two-thirds of men with ED had dyslipidaemia and nearly half of men with ED had a positive stress test or significant coronary heart condition. ED was also common in diabetes patients. Erectile dysfunction and coronary artery disease frequently coexist, due to underlying endothelial dysfunction, causing blood flow restriction. ED may be a marker for occult coronary artery disease (CAD) with a window of opportunity for CAD risk reduction of 2 – 5 years. Recognising the link between ED and CAD is important for doctors, and may improve lives and even save lives.

Erectile dysfunction shares many common risk factors with cardiovascular diseases, including lack of exercise, obesity, smoking, hypercholesterolaemia, and metabolic syndrome; some of which can be modified. Even men with mild ED have significant cardiac risk factors, thus, even men who complain of mild ED should be fully evaluated for cardiac risk factors!

Studies have shown that lifestyle modification and pharmacotherapy for cardiovascular risk factors are effective in improving sexual function in men with ED. In the MMAS, men who began exercising in midlife had a 70% reduced risk for ED compared to sedentary men and a significantly lower incidence over an 8-year follow-up period of regular exercise⁸. Another study of obese men with moderate ED compared 2 years of intensive exercise and weight loss with a control group given general information about healthy food choices and exercise⁹. Significant improvements in body mass index (BMI) and physical activity scores, as well as erectile function, were observed in the lifestyle intervention group. These changes were highly correlated with both weight loss and activity levels.

The screening of risk factors during the workup of ED may allow early recognition of these conditions and minimise future cardiovascular complications.

Causes

The potential aetiology of ED is categorised into psychogenic, organic or mixed according to whether



there is a presumed psychogenic, endocrinologic, neurologic or cardiovascular cause (organic), or a coexistence of psychologic or relationship factors and organic factors (mixed). It is often quoted that 80% of ED have organic causes. Many patients have a combination of factors.^{2,6} Psychogenic causes of ED usually have sudden onset, situational, with preserved morning erection and rigidity. Patients commonly have other associated psychological complaints or poor relationship with spouse. For organic causes of ED, the onset is usual gradual and occurs in all situations. Patients usually have chronic medical conditions such as diabetes mellitus, hypertension and ischaemic heart diseases. There is loss of libido and reduced size of the penis can be found. In younger patients, there may be history of pelvic trauma or previous pelvic surgery or the use of recreational drugs.

Diagnosis

Basic work-up

The cornerstone in the evaluation of ED involves a detailed case history, preferably taken from the patient and partner, physical examination, and proper laboratory tests, in a confidential and non-judgemental manner. Extensive diagnostic procedures are generally not required to confirm the diagnosis of ED.^{2,6}

The first step in evaluating ED is always a detailed medical and sexual history of the patients and partners in a relaxed environment. The sexual history should include information about previous and current sexual relationships, current emotional status, onset and duration of the erectile problem, and previous consultations and treatments. The severity of ED is classified as mild to severe, according to the International Index of Erectile Function¹¹, which is a validated psychometric questionnaire to assess different sexual function domains.

A complete physical examination with focuses on the genitourinary, endocrine, vascular, and neurological systems is required. A physical examination may reveal unsuspected diagnoses, such as Peyronie's disease, prostatic enlargement or irregularity/nodularity, or signs and symptoms suggesting hypogonadism small testes, alterations in secondary sexual characteristics. Height, weight, waist circumference, blood pressure and heart rate should also be measured.

Laboratory tests for men with sexual problems include serum chemistries, fasting glucose, complete blood count, lipid profile, and serum total testosterone, with the aim to identify and treat any reversible risk factors and lifestyle factors that can be modified.

Specific diagnostic tests are indicated only in a minority of patients with primary erectile disorder. Such patients are young patients with a history of pelvic or perineal trauma who potentially could benefit from curative vascular surgery; patients with penile deformities that may require surgical correction e.g. Peyronie's disease. Potential medico-legal patients involved in sexual abuse, or pre-operatively before penile prosthesis implant. Special tests include nocturnal penile tumescense, caverject tiral, vascular imaging, duplex USG, caversonometry and penile arteriography.

Detailed discussion of these special tests is beyond the scope of this article.

Treatment

A large majority of patients with ED can be managed by the primary practitioner. The primary goal in the management of a patient with ED is to determine its aetiology and treat it when possible. ED may be associated with modifiable or reversible risk factors, including lifestyle or drug-related factors.^{26,11}

First line therapies for ED include lifestyle modification, oral PDE5i and the vacuum constriction device. Intracaversonal injection is considered second line therapy, whereas penile implant is third line therapy.

Taking a complete drug history is important as it is not uncommon that a certain medication is an offending factor resulting in ED. Anti-hypertensives including thiazide diuretics and beta-blockers, and psychiatric drugs such as SSRI are common culprits. Changing to a different dose or type of medication entirely may reverse ED in some patients.

Lifestyle modification

EĎ is strongly associated with the presence of comorbid health conditions such as diabetes, cardiovascular diseases, and metabolic syndrome. Optimisation of these diseases can improve ED severity and even prevent the development of ED. Epidemiologic studies support that risk modification may improve erectile function. Discontinuation of cigarette smoking results in recovery of functional erection status. There is also a beneficial role of increasing exercise for ED men with sedentary lifestyle¹². Obese men with moderate ED and no overt symptoms of cardiovascular diseases showed significant improvements in IIEF scores after exercise and weight control compared with a control group, which followed an educational programme alone¹³.

Oral therapy

PDE5 inhibitors work by blocking the catalytic action of the enzyme that degrades cGMP (6). PDE5i is an effective ED treatment and should be offered as first-line treatment to patients with ED unless contraindicated¹¹. The U.S. Food and Drug Administration (FDA) approved sildenafil citrate (Viagra, Pfizer, Inc, New York) in 1998, vardenafil hydrochloride (Levitra, Bayer Schering Pharma AG, Berlin) and tadalafil (Cialis, Lilly LLC, Indianapolis, IN) in 2003. A summary of the 3 commonly used oral PDE5 drugs is listed in the table below.²

All three PDE5 inhibitors have demonstrated equivalent efficacy and tolerability in clinical trials for the treatment of ED of varying severity and cause. In general, PDE5i achieve successful sexual intercourse rates of approximately 70%. To date, there is no data directly comparing the efficacy and/or patient preference for sildenafil, tadalafil, and vardenafil. The choice of drug will depend on the frequency of intercourse and the patient's personal experience. Patients need to know whether a drug is short- or long-acting, its possible disadvantages, and how to use it. According to standard dosing recommendations, patients are instructed to take the medications on demand approximately an hour before the intended sexual activity.¹¹



Contra-indications for PDE5i include the use of nitrates in any form (e.g., sublingual nitroglycerin, isosorbide dinitrate). Other contraindications include myocardial infarction, stroke, or life-threatening arrhythmia within the previous 6 months, patients with New York Heart Association class II or greater heart failure or coronary artery disease causing unstable angina, resting hypotension (90/50 mm Hg) or hypertension (170/100 mm Hg), history of hereditary degenerative retinal disorders including retinitis pigmentosa, severe hepatic impairment (Child-Pugh C) or end-stage renal disease requiring dialysis. Caution is advised when PDE5 inhibitors are coadministered with α -adrenergic blockers because both agents are vasodilators with blood pressure–lowering effects.

It is not uncommon for patients to complain of poor efficacy of PDE5i at the clinic. The two main reasons why patients fail to respond to a PDE5i are either incorrect drug use or lack of efficacy of the drug. There is a large black market for PDE5is. The amount of active drug in these medications varies enormously and it is important to check how and from which source the patient has obtained his medication. Moreover, patients may not know exactly how to take the medication due to inadequate counselling from their physician. The main ways in which a drug may be incorrectly used include inadequate sexual stimulation; suboptimal dose or failure to wait an adequate amount of time between taking the medication and attempting sexual intercourse.²

Daily use of PDE5i with once a day (OAD) tadalafil 5 mg for patients with ED is a relatively new concept, with the potential benefit of being able to have more spontaneous sexual activity. Non randomised trials suggest that daily dosing with a PDE5i might salvage some non-responders to intermittent prn dosing.² A recent study comparing the use of Tadalafil OAD 5 mg with Sildenafil 100 mg showed that efficacy was comparable, but that the tadalafil OAD group showed improved Sexual Self Confidence, less time concerns and more spontaneity.¹⁴ Daily dosing of PDE5i appears promising. However, more evidence is awaited before recommendations on daily dosing can be given.

	Sildenafil (Viagra)	Vardenafil (Levitra)	Tadalafil (Cialis)
FDA approval	1998	2003	2003
Common dose	50 mg / 100 mg prn	10 mg / 20 mg prn	10 mg / 20 mg prn 2.5 mg /5 mg daily
Peak effect	0.5 – 1 hr	0.7 – 0.9 hr	2 hr
Half life	2.6-3.7 h	3.9 hr	17.5 hr
Duration of effect	4 hr	4 hr	24 – 36 hr
Relationship to fatty meals	Yes	Yes	No
ŕ			
Adverse event	Sildenafil (Viagra)	Vardenafil (Levitra)	Tadalafil (Cialis)
Headache	12.8%	16%	14.5%
Flushing	10.4%	12%	4.1%
Dyspepsia	4.6%	4%	12.3%
Nasal congestion	1.1%	10%	4.3%
Dizziness	1.2%	2%	2.3%
Abnormal vision	1.9%	<2%	
Back pain			6.5%
Myalgia			5.7%

If drug treatment fails despite the above measures, the patients can be offered an alternative therapy such as intracavernosal injection therapy or use of a vacuum erection device as second line treatment, and penile implant as a third line treatment. At this juncture, it will be appropriate for specialist referrals. Similarly,

specialist referrals may be required for individuals with complicated or atypical presentations of ED, including younger patients with a history of pelvic or perineal trauma; patients with significant penile deformity (e.g. Peyronie disease, congenital chordee); complicated endocrinopathies (e.g. secondary hypogonadism, pituitary adenoma); complicated psychiatric or psychosexual disorders (e.g. refractory depression, hypoactive sexual desire); presentations requiring vascular or neurosurgical intervention(e.g. aortic aneurysm, lumbosacral disc disease); medicolegal reasons (e.g. workman's compensation claims).

Conclusion

Erection is a neuro-vasculo-tissular phenomenon under hormonal control. Erectile dysfunction is common worldwide, and shares many risk factors with cardiovascular diseases. It is important for the general practitioner to recognise ED in the general population, and every opportunity should be grasped to look for underlying risk factors. Lifestyle modification (intensive exercise and decrease in BMI) can improve erectile function. Oral PDE5i, unless contraindicated, should be offered as a first-line of therapy for erectile dysfunction. Those who fail first line treatment for ED or with features of primary complicated or atypical presentations of ED should be referred to specialists for further workup and management.

References

- National Institute of Health NIH Consensus Conference. Impotence. NIH Consensus Development Panel on Impotence. JAMA 1993;270:83-90
- European Association of Urology Guidelines on Male Sexual Dysfunction 2013
- Feldman HA, Goldstein I, Hatzichristou DG, et al. Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. J Urology 1994;151:54-61
- Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: prevalence and predictors. JAMA. 1999 Feb 10;281(6):537-44
- Ng EM, Cheng JY. Prevalence and biopsychosocial correlates of erectile dysfunction in Hong Kong: a population-based study. Urology 2007;70:131-136
- 6. AJ Wein. 2012 Elsevier. Campbell-Walsh Urology Tenth Edition
- Thompson IM, Tangen CM, Goodman PJ, Probstfield JL, Moinpour CM, Coltman CA. Erectile Dysfunction and Subsequent Cardiovascular Disease. JAMA. 2005;294(23):2996-3002.
- Derby CA, Mohr BA, Goldstein I, et al. Modifiable risk factors and erectile dysfunction: can lifestyle changes modify risk? Urology 2000 Aug;56(2):302-6.
- Esposito K, Giugliano F, Di Palo C, et al. Effect of lifestyle changes on erectile dysfunction in obese men: a randomized controlled trial. JAMA 2004 Jun;291(24):2978-84.
- Rosen RC, Riley A, Wagner G, et al. The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. Urology 1997 Jun;49(6):822-30
- American Urological Association. The Management of Erectile Dysfunction: an Update. 2005 | Reviewed and validity confirmed 2011
- Feldman HA, Goldstein I, Hatzichristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. J Urol. 1994 Jan;151(1):54-61.
- Esposito K, Giugliano F, Di Palo C et al. Effect of lifestyle changes on erectile dysfunction in obese men: a randomized controlled trial. JAMA. 2004 Jun 23;291(24):2978-84.
- 14. Rubio-Aurioles E, Porst H, Kim ED et al. A randomized open-label trial with a crossover comparison of sexual self-confidence and other treatment outcomes following tadalafil once a day vs. tadalafil or sildenafil on-demand in men with erectile dysfunction. J Sex Med. 2012 May;9(5):1418-29.



Public Talk - Infectious Diseases

On 17 November 2013, a public talk on 'Infectious Diseases' was held at the Federation's Lecture Hall. As the flu season was approaching, the captioned topic was a hot issue in town. The Federation was privileged to organise this event with our speaker, Dr Thomas Man-kit SO, president of The Hong Kong Society for Infectious Diseases. Dr So delivered the topic on the latest update on H7N9 and other infectious diseases. The participants' active questioning in the Q&A section helped to complete a very successful & interactive seminar.



Federation President Cup Soccer Five and Basketball Tournament 2013

The Federation President Cup Soccer Five & Basketball Tournament for 2013 was held at the Ying Wa College on 24 November and 1 December 2013. This year we were making the third attempt in organising the basketball matches, which had proved to make our fraternal activity an even bigger success. There were 23 participating teams in total for the Soccer Five and Basketball Tournament, with a record number of participants.

For the Soccer Five, teams included the Federation Invitation Team, AstraZeneca Hong Kong Limited, 獅子會一生一世會長球隊 Team 1, Hong Kong Ophthalmological Society, Pfizer Corporation Hong Kong Limited, Jacobson Pharma Group, Hong Kong Medical Association, Hong Kong Neurosurgical Society, Bupa (Asia), Hong Kong Dental Association and Bayer.

As for the Basketball Tournament: Hong Kong Medical Supplies, AstraZeneca Hong Kong Limited, 獅子會一生一世會長球隊 Team 2, Pfizer Corporation Hong Kong Limited, Baxter Healthcare Limited, Jacobson Pharma Group, Janssen Pharmaceuticals Company (2 teams), Sanofi-aventis HK Limited, Hong Kong Neurosurgical Society, Hong Kong Urological Association and Hong Kong Dental Association.

This year we were honoured to have again the participation of the Sun Hei All Stars Football team (晨曦明星足球隊) on the closing day. Our Federation United Team, comprising of members from various teams of the tournament, played a friendly exhibition match with the All Star Sun Hei Football team.

We were delighted to have our honourable guests Mr King-shing TANG, GBS, Former Commissioner of Police and Mr Man-leung CHOW, President of Sun Hei Sports Club Limited in joining us to present trophies to the winning teams.

We would like to congratulate all the winners in the tournaments and express our sincere gratitude to all the participants and guests for their active participation and support. We look forward to seeing you again at the Federation President Cup Soccer Five & Basketball Tournament in 2014!

The photos were nicely taken and they had already been uploaded onto the Federation's website http://fmshk.org/fmshk.html?id=416

Federation President Cup Soccer Five and Basketball Tournament 2013

The followings were the results of the tournaments:

Soccer Five Tournament

Champion : Pfizer Corporation Hong Kong Limited

1st Runner-Up : Bupa (Asia) Limited 2nd Runner-Up : Federation Invitation Team Top Scorer : Mr Jan Lennart LIESKE, Bayer

Basketball Tournament

Champion : Jacobson Pharma Group

1st Runner-Up : AstraZeneca Hong Kong Limited
2nd Runner-Up : Pfizer Corporation Hong Kong Limited
Top Scorer : Mr Sui-lun NG, Jacobson Pharma Group

Exhibition Match

Champion : Federation United Team 1st Runner-Up : Sun Hei All Star Football Team







Federation President Cup Soccer Five and Basketball Tournament 2013





Audi Car-launch Ferry Party

On 5 December 2013, the Executive Committee members of the Federation of Medical Societies of Hong Kong were invited by Audi for its new sports car model launch on board a double-decked vehicular ferry. During the celebration party, there were fabulous performances as well as an unveiling ceremony of the sports cars. Our Executive Committee members exchanged driving tips and interests with the hosts and spent an enjoyable evening together.



Central & Western District Health Festival 2013/14

The HKFMS Foundation Limited is delighted to continue the support and participation for the annual Central and Western Health Festival. This year, the Festival was successfully held on 2-3 November 2013 at the Smithfield Sports Centre. In the two-day Festival, over 1,750 citizens joined the Foundation activities. An increased participation from our Foundation with 6 health talks and 5 health booths were organised this year, composing of dental checks, eye tests, games for older citizens, sensory discrimination tests for children, blood pressure measurements and consultations. We would like to express our sincere thanks to the following speakers and member societies, namely Dr Ka-kui LEE, Dr Derek SY LI, Dr Tommy CHEUNG, Prof Jihui ZHANG, Ms Sally POON, Mr Nelson LAM, Ms Crystal CEN, the Hong Kong Society of Professional Optometrists, Hong Kong Occupational Therapy Association and Dr. Sai-kwing CHAN, First Vice-President of the Federation. We would like to also thank the following sponsors for their gifts and support: Abbott Medical Optics, Colgate, International Medical, Topcon Beijing (HK) Ltd, Alcon Hong Kong Limited, Poon's Pharm (USA) Medicine Limited.





The Hong Kong Society of Professional Optometrists

The Hong Kong Society of Professional Optometrists (HKSPO) was established by a group of overseas optometry graduates in 1982. Over years of development, we are now having nearly 400 members. Our members have undergone university training from either The Hong Kong Polytechnic University (PolyU) or optometry school from overseas universities. Most members are registered as Part I optometrists under the Hong Kong Government Register.

Since April 1996, all optometrists in HK have to be licensed and registered in four different parts under the Register according to their professional qualifications or working experience. Part I registered optometrists are well-trained in university to examine and diagnose visual problems and eye diseases such as glaucoma, cataract and retinal diseases. We prescribe corrective lenses and contact lenses as well as provide vision training for



patients suffering from visual disorders such as amblyopia and strabismus. Part I optometrists will also use ophthalmic diagnostic drugs during eye examination. Currently, PolyU is the only university to cultivate optometrists in Hong Kong through a five-year bachelor degree programme.

Our society endeavors to promote and improve the science and practice of optometry. We aim at maintaining the highest standards of primary eye care services for the public benefits. In 2012-13, we carried out vision screening activities and seminars for hundreds of citizens, as in the Shatin Health Festival 2013, the Central & Western District Health Festival and the Elderly EyeCare Day in Wanchai district, in order to enhance the public health awareness. Furthermore, with the extension of the Elderly Health Care Voucher Pilot Scheme in 2012, the optometric services are now covered by this Government subsidization. This means that the eligible elderly can now use their vouchers to procure primary eye care services from the qualified Part I optometrists.

HKSPO celebrated its 30th Anniversary on 22March2013. We are delighted to share the joy with friends in Federation for this memorable moment. It was a fruitful and exciting evening filled with Latin Dance and A-cappella performance. It was our honour to have Dr Ko Wing Man BBS, JP to be one of our guest speakers. Our society would like to thank for his great support to the optometry development. Also, special thanks to Dr Raymond Lo, President of the FMSHK, for attending our anniversary dinner.

Our society will continuously serve the community with our best effort and look forward to collaborating with different professions to provide the public all-round healthcare services.

Hong Kong Association for Integration of Chinese-Western Medicine

Hong Kong Association for Integration of Chinese-Western Medicine (HKAIM) was incorporated in 2001 with the objective to promote study, research and practice of medicine that bring together Traditional Chinese and Western medical practitioners, and advance their integration in clinical applications and health development. Our members included Doctors, Chinese Medicine Practitioners, Professors, Nurses and Medicine Specialists. Since 2003, we organized scientific activities jointly with the Mainland and local medicine communities. We are both Continuing Medicine Education (CME) provider of Chinese Medicine Practitioner and Continuing Nursing Education (CNE) provider of Nurse. Thousands of Western Medicine and Chinese Medicine participants have attended our Seminars and Conferences.



Major events during these years:

- Cancer Conference: Chinese Medicine and Modern Medicine Approach (15-16 March 2003)
- Infectious Disease (Ruibing) Conference: Chinese Medicine and Modern Medicine Management Conference (18-19 September 2004)
- Cerebrovascular and Cardiovascular Diseases Integrating Chinese and Western Medicine Conference (4-5 March 2006)
- Skin Diseases Integrating Chinese and Western Medicine Conference (16-17-2007)
- Symposium on Global Development in Chinese Medicine (24-25 November 2007)
- Acupuncture and Moxibustion in Pain Management Conference 2009 (15-17 May 2009)
- Hong Kong International Acupuncture Conference 2011 Neurological and Mental Illness (14-16 January 2011)
- Hong Kong International Integrative Medicine Conference 2012 Chinese Medicine in Geriatrics (6-8 July 2012)

Recent events in this year:

- Certificate Course of Primary Healthcare for Traditional Chinese Medicine Practitioners Community Psychological Medicine (9th December, 2012 – 3rd February, 2013)
- Certificate Course of Primary Healthcare for Traditional Chinese Medicine Practitioners Community Paediatrics and Child Health (17th February – 14th April 2013)
- Integration Medicine Seminar Integrative Medicine for Sleep and Mood Disorders: from Traditional Empiricism to Clinical Trials (20th April 2013)
- Certificate Course of Primary Healthcare for Traditional Chinese Medicine Practitioners Community Geriatrics (28th April – 16th June, 2013)



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	* Joint Surgical Symposium - Laparoscopic Colorectal Audit	4
* RSCP Volleyball Tournament	* The Management of High Risk Prostate Cancer * HKMA Choir Family Concert 2014	* FMSHK Officers' Meeting * HKMA Council Meeting	* Hong Kong Neurosurgical Society Monthly Academic Meeting-Shaken Baby Syndrome * HKMA Central, Westem & Southern Community Network- New Guideline Update in Hypertension Management	* HKMA Hong Kong East Community Network- Practical Management of Premature Ejaculation * HKMA Kowloon East Community Network- Management of Ischemic Heart Disease in Diabetic Patient	01	* HKMA CME - Refresher Course for Health Care Providers 2013/2014
12	[3	14	15	* FMSHK Executive Committee Meeting	17	* 9th HKMA Sports Night
61		* HKMA Kowloon West Community Network- Update on Asthma Insights & its Management	* HKMA Central, Western & Southern Community Network- Do Patient Characteristics Influence Choice of DPP-4 Inhibitor?	* HKMA Hong Kong East Community Network-Current and Emerging Treatments for Asthma * HKMA Kowloon East Community Network-Practical Aspect in Management of Atopic Eczena * HKFMS Foundation Committee Meeting	* HKMA Yau Tsim Mong Community Network- Current and Emerging Treatments for Asthma	25
26	27	28	29	30	31	



Date	/ Time		Function	Enquiry / Remarks
3	FRI	8:00 pm	Joint Surgical Symposium - Laparoscopic Colorectal Audit Organisers: Department of Surgery, The University of Hong Kong & Hong Kong Sanatorium & Hospital, Chairman: Dr. Angus CHAN, Speakers: Dr. Michael LI & Professor LAW Wai-Lun, Venue: Hong Kong Sanatorium & Hospital	Department of Surgery, Hong Kong Sanatorium & Hospital Tel: 2835 8698 1 CME point
5	SUN	6:00 pm	RSCP Volleyball Tournament Organiser: The Hong Kong Medical Association, Chairman: Dr. CHEONG Shao Nean, Venue: Siu Sai Wan Sports Centre	Mr. Andie HO Tel: 2527 8285
6	MON	7:30 pm	The Management of High Risk Prostate Cancer Organiser: Hong Kong Urological Association, Chairman: Dr Marco Chan, TMH, Speaker: Dr Terence Lai, TMH, Venue: Multi-disciplinary Simulation and Skills Centre, 4/F, Block F, QEH HKMA Choir Family Concert 2014 Organiser: The Hong Kong Medical Association, Chairman: Dr. CHAN Yee Shing, Venue: Theatre, Hong Kong City Hall	Ms. Tammy HUNG Tel: 9609 6064 1 CME point Ms. Candy YUEN Tel: 2527 8285
7	TUE	8:00 pm 8:00 pm	FMSHK Officers' Meeting Organiser: The Federation of Medical Societies of Hong Kong, Venue: Gallop, 2/F., Hong Kong Jockey Club Club House, Shan Kwong Road, Happy Valley, Hong Kong HKMA Council Meeting Organiser: The Hong Kong Medical Association, Chairman: Dr. TSE Hung Hing, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong)	Ms. Nancy CHAN Tel: 2527 8898 Ms. Christine WONG Tel: 2527 8285
8	WED	7:30 pm 1:00 pm	Hong Kong Neurosurgical Society Monthly Academic Meeting-Shaken Baby Syndrome Organiser: Hong Kong Neurosurgical Society, Chairman: Dr. KWOK Ngai Fung, Venue: Seminar Room, Ground Floor, Block A, Queen Elizabeth Hospital HKMA Central, Western & Southern Community Network- New Guideline Update in Hypertension Management Organiser: HKMA Central, Western & Southern Community Network, Chairman: Dr. POON Man Kay, Speaker: Dr. WONG Bun Lap, Bernard, Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	Dr. Gilberto LEUNG Tel: 2255 3368 1.5 CME points Miss Hana YEUNG Tel: 2527 8285 1 CME point
9	THU	1:00 pm 1:00 pm	HKMA Hong Kong East Community Network- Practical Management of Premature Ejaculation Organiser: HKMA Hong Kong East Community Network, Chairman: Dr. YOUNG Ying Nam, Dominc, Speaker: Prof. NG Chi Fai, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong) HKMA Kowloon East Community Network- Management of Ischemic Heart Disease in Diabetic Patient Organiser: HKMA Kowloon East Community Network, Chairman: Dr. AU Ka Kui, Gary, Speaker: Dr. WONG Ming Ho, Venue: Lei Garden Restaurant (利苑灣家),Shop no. L5-8, apm, Kwun Tong, No. 418 Kwun Tong Road, Kwun Tong, Kowloon	Miss Candice TONG Tel: 2527 8285 1 CME point Miss Hana YEUNG Tel: 2527 8285 1 CME point
H	SAT	2:15 pm	HKMA CME - Refresher Course for Health Care Providers 2013/2014 Organisers: Hong Kong Medical Association, HK College of Family Physicians & HA-Our Lady of Maryknoll Hospital, Speaker: Mr. Jackie FAN, Venue: Training Room II, 1/F, OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon	Ms. Clara Tsang Tel: 2354 2440 2 CME points
16	THU	8:00 pm	FMSHK Executive Committee Meeting Organiser: The Federation of Medical Societies of Hong Kong, Venue: Council Chamber, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Ms. Nancy CHAN Tel: 2527 8898
18	SAT	7:00 pm	9th HKMA Sports Night Organiser: The Hong Kong Medical Association, Chairman: Dr. CHAN Hau Ngai and Dr. IP Wing Yuk, Venue: The Grand Hall	Miss Nadia HO Tel: 2527 8285
21	TUE	1:00 pm	HKMA Kowloon West Community Network- Update on Asthma Insights & its Management Organiser: HKMA Kowloon West Community Network, Chairman: Dr. CHAN Ching Pong, Speaker: Dr. CHAN Chung Yan, Anthony, Venue: Crystal Room I-III, 30/F., Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, N.T	Miss Hana YEUNG Tel: 2527 8285 1 CME point
22	WED	1:00 pm	HKMA Central, Western & Southern Community Network- Do Patient Characteristics Influence Choice of DPP-4 Inhibitor? Organiser: HKMA Central, Western & Southern Community Network, Chairman: Dr. TSANG Chun Au, Speaker: Dr. Norman CHAN, Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	Miss Hana YEUNG Tel: 2527 8285 1 CME point
23	ТНО	1:00 pm 1:00 pm 8:00 pm	HKMA Hong Kong East Community Network- Current and Emerging Treatments for Asthma Organiser: HKMA Hong Kong East Community Network, Chairman: Dr. YIP Yuk Pang, Kenneth, Speaker: Dr. LAI Kei Wai, Christopher, Venue: HKMA Head Office (5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong) HKMA Kowloon East Community Network- Practical Aspect in Management of Atopic Eczema Organiser: HKMA Kowloon East Community Network, Chairman: Dr. MA Ping Kwan, Danny, Speaker: Dr. CHOW Pok Yu, Venue: East Ocean Seafood Restaurant (東海鲜酒家), Shop 137, 1/F, Metro City Plaza 3,8 Mau Yip Road, Tseung Kwan O, Kowloon HKFMS Foundation Committee Meeting Organiser: The Federation of Medical Societies of Hong Kong, Venue: Council Chamber, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Miss Candice TONG Tel: 2527 8285 1 CME point Miss Hana YEUNG Tel: 2527 8285 1 CME point Ms. Nancy CHAN Tel: 2527 8898
24	FRI	1:00 pm	HKMA Yau Tsim Mong Community Network- Current and Emerging Treatments for Asthma Organiser: HKMA Yau Tsim Mong Community Network, Speaker: Dr. LAI Kei Wai, Christopher, Venue: Eaton Smart, Hong Kong (380 Nathan Road, Kowloon)	Miss Candice TONG Tel: 2527 8285 1 CME point

Answers to Dermatological Quiz

Answers:

1. Seborrhoeic dermatitis

It is reasonable to make this provisional diagnosis as the morphology and distribution of the lesions were compatible with it. Seborrhoeic dermatitis typically affects the seborrhoeic and intertriginous areas. It has an aetiological link with active sebaceous glands, abnormal sebum composition and a yeast called Malassezia furfur (Pityrosporum ovale). Seborrhoeic dermatitis is a common manifestation of HIV infection affecting 70-80% of cases at some stage of the disease.

2. Sebo-psoriasis

The clues of the correct diagnosis in this patient were the thick scales, relatively well-demarcated plaques and failure to respond to mild topical steroid. Sebo-psoriasis is a distinct phenotype of psoriasis, being classified under plaque type psoriasis. Psoriasis has genetic predisposition with a multifactorial mode of inheritance, which accounts for the phenotype heterogeneity. There are now more than 7-10 different phenotypes in psoriasis being defined, and these different forms may alter their morphology and course of disease, switching from one type to another.

- 3. Sebo-psoriasis has similarity in morphology and anatomical distribution to seborrhoeic dermatitis. Sometimes they are indistinguishable from each other as both can have greasy yellowish scales, instead of the usual dry and silvery scales in psoriasis. It may occur either alone or associated with plaque psoriasis elsewhere. In general, lesions of sebo-psoriasis are more localised and well demarcated at the scalp, with thicker scales, deeper red colour, and usually fails to respond to mildly potent topical steroids or anti-dandruff shampoo. Lesions of seborrhoeic dermatitis are more diffuse at the scalp, with fine scales, and usually respond to mildly potent topical steroids and antifungals.
- 4. Treatments on the face consist of potent topical steroids (a new-generation topical steroid is preferred to minimise skin atrophy) and topical calcineurin inhibitors. Vit. D3 analogues and tar are not suitable because of their irritating effect on the face. Treatments on the scalp include potent topical steroid, calcipotriol and tar in gel, lotion or shampoo forms. For thick scaly lesions, keratolytic agents (like 2% salicyclic acid, 2% sulphur) and emollient (like olive oil) can be added for de-scaling.

Dr Lai-yin CHONG

MBBS(HK), FRCP(Lond, Edin, Glasg), FHKCP, FHKAM(Med)
Private dermatologist

The Federation of Medical Societies of Hong 4/F Duke of Windsor Social Service Building, 15 Henness Tel: 2527 8898 Fax: 2865 0345	Kong sy Road, Wanchai, HK
President Dr LO See-kit, Raymond	勞思傑醫生
Ist Vice-President	陳世烱醫生
Dr CHAN Sai-kwing 2nd Vice-President	深世炯哲生
Dr NG Yin-kwok	吳賢國醫生
Hon. Treasurer Mr LEE Cheung-mei, Benjamin	李祥美先生
Hon. Secretary	777 /++ >1 c 19674 / 1 .
Dr CHAK Wai-kwong, Mario Executive Committee Members	翟偉光醫生
Dr CHAN Chun-kwong, Jane Dr CHAN Hau-ngai, Kingsley Prof CHEUNG Man-yung, Bernard Prof CHIM Chor-sang, James Dr FONG Yuk-fai, Ben Dr HUNG Wai-man Ms KU Wai-yin, Ellen Dr MAN Chi-wai Dr MOK Chun-on	詹楚生教授 方压年 解性 解性 解 整生 解
Dr NG Chun-kong Dr SO Man-kit, Thomas Dr WONG Sau-yan Ms YAP Woan-tyng, Tina Dr YU Chau-leung, Edwin Dr YUNG Shu-hang, Patrick Founder Members	吳振江醫生 蘇文守 黃文 華 華
British Medical Association (Hong Kong Bra 英國醫學會(香港分會)	inch)
President Dr I O See kit Raymond	勞思傑醫生
Dr LO See-kit, Raymond Vice-President	另心体西主
Dr WU, Adrian	鄥揚源醫生
Hon. Secretary Dr HUNG Che-wai, Terry	洪致偉醫生
Hon. Treasurer	
Dr Jason BROCKWELL Council Representatives	
Dr LO See-kit, Raymond Dr CHEUNG Tse-ming Tel: 2527 8898 Fax: 2865 0345	勞思傑醫生 張子明醫生
The Hong Kong Medical Association 香港醫學會	
President	
Dr TSE Hung-hing Vice- Presidents	謝鴻興醫生
Dr CHAN Yee-shing, Alvin	陳以誠醫生
Dr CHOW Pak-chin Hon. Secretary	周伯展醫生
Dr LAM Tzit-yuen	林哲玄醫生
Hon. Treasurer Dr LEUNG Chi-chiu	梁子超醫生
Council Representatives Dr CHAN Yee-shing	(本) 「記念をみ
Dr CHOW Pak-chin	陳以誠醫生 周伯展醫生
Chief Executive Mrs LEUNG, Yvonne Tei: 2527 8285 (General Office) 2528 8324 (Sept State House in War Fave State (Wancha), 2536 9398 (Central) Email: htmatilhana org Website: http://www The HKFMS Foundation Limited 香港醫	梁周月美女士 Ichai / Central) Inkma.org 學知總聯會基金
Board of Directors	厂 在INX小时日
President Dr LO See-kit, Raymond	勞思傑醫生
Ist Vice-President Dr CHAN Sai-kwing	陳世烱醫生
2nd Vice-President	
Dr NG Yin-kwok Hon. Treasurer	吳賢國醫生
Mr LEE Cheung-mei, Benjamin	李祥美先生
Hon. Secretary Dr CHAK Wai-kwong, Mario	翟偉光醫生
Directors	
Mr CHAN Yan-chi, Samuel Dr FONG Yuk-fai, Ben Dr HUNG Wai-man Ms KU Wai-yin, Ellen Dr YU Chak-man, Aaron	陳恩賜先生 方玉輝醫生 熊偉民醫生 顧慧賢女士 余則文醫生





Practice Management For Private Medical Practices

About the Course

This is an applied course where participants will work as a team to:

- Perform critical analysis and develop in-depth understanding of healthcare management problems;
- Develop ideas and proposals about how these problems might be resolved;
- Determine the **intended** and **unintended consequences** of actions taken by the management team.

Course Objectives

On completing this course, participants will be able to:

- Acquire general and practical management skills for managing private healthcare services;
- Apply the acquired management skills in resolving the practical problems of managing private healthcare services;
- Adopt best practices of management skills in strategic planning and operating private healthcare services.

Who should join?

The course is suitable for all **management personnel** from the private healthcare sector.

About the Tutor

Mr. Peng KONG is currently a healthcare management specialist at School of Public Health of University of Hong Kong. Peng has obtained **MPH**, **MHSM** and **MBA** through local and oversea universities; and has professional experience of managing private healthcare companies.

Feb 10 - Apr 14, 2014

Details

Date: Feb 10 to April 14, 2014

(Every Monday)

Time: 6:30 - 8:30 pm Venue: Room G-03. G/F.

The HKJC Building

for Interdisciplinary Research, 5 Sassoon Road, Pokfulam, HK

Course Fee: HK\$7,500

CME Points: Pending for approval

Special Offer

Early Birds 50% off (application before January 10, 2014)

HKU Staff & Students 50% off

Research Postgraduates with a HK Tertiary Institution

\$200

The application will be processed on a first-come-first served basis.

Places for research postgraduates are limited. Notification will be sent to successful applicants.

Guest Experts



Dr. Nelson WONG
LRCP (London),
MRCS (England),
MBBS (London),
MRCP (UK),
FLMI (with Distinction)



Dr. Ares LEUNG MBBS (HK), FRCOG, FHKCOG, FHKAM (O & G)



Dr. Ronnie HUI, J.P. MBBS (HK), FHKAM (Paediatrics), FHKC Paediatrics, CFA, MBA



Dr. Brian CHAN MBBS (HK), DCH (RCP & SI), DPD (Cardiff)



Dr. Bennet FUNG
MBBS (HK),
DCH (London),
DFM (CUHK),
MRCGP (UK),
Dip Med (CUHK)



Mr. Tony TAN
BSc (Management),
BSc (Chemistry), MBA

Apply Now

Application Form: http://mph.sph.hku.hk/en/prospective_students/form/MPH_Form_(Occasional)_2013.pdf Please keep check of our website for the latest information: http://mph.sph.hku.hk/

Enquiry Tel: (852) 2819 9140 • Fax: (852) 2855 9528 • Email: mphsph@hku.hk • Website: http://mph.sph.hku.hk/



insulin lispro (rDNA origin) injection



25% insulin lispro (rDNA origin) injection 75% insulin lispro protamine suspension



50% insulin lispro (rDNA origin) injection 50% insulin lispro protamine suspension



- Easy to learn, easy to use1
- Low, smooth injection force²
- Lightweight²

For complete instructions on Humalog[®] KwikPen™, Humalog[®] Mix25™ KwikPen™, Humalog[®] Mix50™ KwikPen™ please refer to the full user manual provided with the Pen.

Deference

Ignaut DA, Schwartz SL, Sarwat S and Murphy HL. Diebetes Educ 2009;35:789-798.
 Ignaut DA. Opincar M and Lenox S. J Diabetes Sci Technol 2008:2:533-537.

Further information is available upon request.

