Main Conference Speakers' Abstracts

The State of Men's Health in Singapore

Dr Carol Tan-Goh
K. K. Women's and Children's Hospital, Singapore

Health is not merely the absence of disease or infirmity. It is physical, emotional, functional, social and spiritual wellbeing.

The only cure for "growing old" is to die young. We all want to live well, in good health-free of disease and disability and to be able to enjoy life to its fullest no matter what our age. Chronological ageing is not the same as physiological ageing. With better health care, diet, lifestyle and medical advances, it is possible to live long and live well.

Singapore is one of the fastest ageing populations in the world. The average lifespan of our men is approximately 80years. However, while life span has lengthened, the growing concern is that of chronic diseases like hypertension, diabetes, mental health issues like depression and lifestyle habits e.g. smoking which may adversely affect our quality of life as life span lengthens.

At this session, the data on the state of Men's health in Singapore, adopting a holistic, whole life approach will be shared. An overview of the "health" services that spans not only the medical health aspects but also social and community programmes that contribute to better "health" will also be shared.

Metabolic syndrome in Men

A/Prof Tai E Shyong
National University of Singapore, Singapore

The metabolic syndrome is a constellation of physiologic abnormalities that occur together in any one individual more often than could be expected by chance. Insulin resistance may be a key pathway that underlies this disorder. The metabolic syndrome is a predictor of diabetes mellitus and cardiovascular disease. Although obesity is a component of the metabolic syndrome, its presence does not seem to be criticial suggesting that there may be other pathways that can lead to insulin resistance. Over the past several years, there has been in increasing interest in the role of sex hormones in the pathogenesis of the metabolic syndrome and type 2 diabetes mellitus. Prospective studies have shown that alterations in the levels of testosterone and sex hormone binding globulin pre-date the onset of the metabolic syndrome and type2 diabetes mellitus. The associations are consistent across a variety of populations, but differ between men and women. In men, low testosterone is associated with increased risk of type 2 diabetes and the metabolic syndrome, whereas in women, the converse is true. In men with low testosterone levels or androgen deficiency, testosterone replacement reduces obesity, improves insulin resistance and other features of the metabolic syndrome. However, these are short terms studies examining surrogate end-points. Although sex hormones have been implicated in the pathogenesis of the metabolic syndrome, long term studies are needed to confirm the benefits of testosterone replacement in men.

Keynote Speech - "Men's Health in the New Age - Men's Health – Past, Present & Future"

Dato Prof Dr Tan Hui Meng
University of Malaya, Malaysia

Less than 100 years ago, when the life and probably health expectancies of both men and women were about equal, gender specific health was not an issue. Women's Health was well established in the mid seventies and early eighties. Men's Health only emerged and broke into mainstream after 1995. It is only in 2005 that the Men's Health Act and the Office of Men's Health were established in the US.

Till todate, from utero to old age, and for each of the 10 leading causes of death male have higher mortality than female. Even for the same disease, men are more likely to succum eg. hip fracture. Most researchers blame male behavioral factors resulting in poor health seeking attitude and poor preventive health care. Male stoicism, reluctance to seek help and afraid of being vulnerable also account for the poor health outcome. The American Academy of Family Physician claims that 30 behaviors place men's health at risk.

Today, men's health movements are in full swing to dwelve into the gender disparities of health. Numerous concerted efforts by both governmental and NGO's are being formulated and strategise to elevate the status of men's health. Researchers, health promoters social market experts and the medical communities as a whole, need to intensify their effort to understand the psychobehavioral attitudes of the various categories of men to identify their risk factors, change their risk seeking behaviors, influence their health seeking attitudes and tailor preventive health strategies accordingly. The primary care physician could screen and profile each men, and formulate a personalized preventive healthcare plan based on shared decision making model and evidence based decision aids.

Epidemiological and prospective studies have indicated that lifestyle changes can modify the progression of life threatening diseases including cancers. Physician should work with their patients on a life-long prevention and lifestyle medication plan designed for primary and secondary preventive strategies. In the not too far future, accessibility to new knowledge on novel solutions to human disease and preventive medicine, including personalised diet and lifestyle counseling, genetic counseling, and the possibility of using induced pluripotent stem cells to heal diseased and damaged organs may be a reality.

Special Address - Promotion for Men's Health – Advocacy or Common Sense?

Prof Siegfried Meryn
International Society for Mens Health & Gender, Austria

Recent Advances in the Management of Patients with Ischemic Heart Disease
A/Prof Mak Koon Hou
Gleneagles Medical Centre, Singapore

Obesity and Diabetes Mellitus
Dr Tham Kwang Wei
Singapore General Hospital, Singapore

Testosterone: Its not all about Sex

Prof Farid Saad
Corporate Strategic Marketing Schering AG, Germany

It is no exaggeration to say that our conceptualization of the (patho)physiological functions of testosterone has undergone a revolutionary development. But even today, the associations most physicians have with testosterone is that it only subserves reproductive and sexual functions. Over the last three decades it has become apparent that the functions of testosterone in adult life are much wider than hitherto assumed. Testosterone plays a significant role in the development and maintenance of bone and muscle mass, in erythropoiesis, and in mental functions. The latter is not limited to libido but testosterone has a general vitalizing function on mood and energy. More recent are the insights that testosterone is a key player in glucose homeostasis and lipid metabolism. Again, most physicians will associate testosterone with the sex difference in cardiovascular morbidity. Cardiovascular disease and death occur about a decade earlier in the lives of men than of women. This issue has been critically reviewed and, while the sex difference undeniably exists, it cannot be attributed to testosterone per se.

The metabolic syndrome is a clustering of risk factors which predispose an individual to late onset diabetes mellitus and cardiovascular morbidity and mortality. The main components of the syndrome are visceral obesity, glucose intolerance, raised blood pressure and dyslipidaemia (elevated triglycerides, low levels of high-density lipoprotein cholesterol), and a pro-inflammatory and pro-coagulatory state. Cross-sectional epidemiological studies have reported a direct correlation between plasma testosterone and insulin sensitivity, and low testosterone levels are associated with an increased risk of type 2 diabetes mellitus in men. The metabolic syndrome has also relevance to the urologist. At the epidemiological level an association between central obesity in adulthood and lower urinary tract symptoms could be established.

Many, if not most, physicians harbor wrongful associations between testosterone and the development of prostate pathology such as prostate cancer and benign prostate hyperplasia. Recent studies prove otherwise. On the basis of these trepidations many, more specifically elderly, hypogonadal men do not receive adequate androgen treatment.

Prostate Cancer among Asian Men – Treatment Updates

Prof Mikio Namiki
Kanazawa University Graduate School of Medical Science, Japan

In the United States prostate cancer is the first rank in men's cancer. Annual morbidity of prostate cancer has been still increasing. However, mortality of the prostate cancer has been decreasing since PSA adoption, because discovery of PSA caused so called stage migration and decreased advanced prostate cancer.

How about Asian countries. In the 1980s, the mortality from prostate cancer was relatively low in Asian countries. However, since then the mortality from prostate cancer has been explosively increasing. Now in Japan, mortality from prostate cancer is the 6th rank, and morbidity rate of prostate cancer is estimated as No1 or No2 in 2020.

Stage migration caused by PSA adoption quickened the progress of treatments for prostate cancer, especially for localized prostate cancer. Now, radical prostatectomy has been established as definitive treatment for localized prostate cancer. And recently, new modalities of radiotherapy such as brachytherapy has becoming widespread. However, data on the current treatment of prostate cancer in Japan shows that primary androgen deprivation therapy (PADT) is chosen to treat localized prostate cancer in an extremely high proportion of cases. Now, little high-quality evidence is available to guide patients on the comparative effectiveness and adverse effects of each treatment for localized prostate cancer. As to PADT it is very difficult to accurately evaluate the effectiveness, because many factors such as type and duration of ADT, difference of race obviously affect the outcome.

Now, accumulation of clinical data and hopefully clinical trials in Asian countries are expected.

Prostate & Bladder Cancer - Lessons for Living
Prof Kesavan Esuvaranathan
Singapore Urological Association, Singapore

Advanced Prostate Cancer in Asia - Updates on Palliative Therapy
Dr James Tan
James Tan Centre for Urology and Robotic Surgery, Singapore

Are Cancers More Common in Men? – Epidemiology & Screening

Prof Khoo Ee Ming
University of Malaya, Malaysia

Cancer is a leading cause of death in the world, accounting for 13% of all deaths in year 2007. Worldwide, the incidence and prevalence of cancer in different gender vary with geographical regions, cancer sites, as well as economic development of a country. Data from GLOBOCAN 2002 showed the worldwide incidence of cancers at all sites is more common in men than in women. However, cancer prevalence estimates in adult differs in developed countries (similar in both gender) to developing countries (25% greater in women than men).

Cancers with high fatality such as cancers of the lung, liver, oesophagus, stomach are more common in men than women, and the sex ratio for cancer deaths is 1.3 (male to female). The YLL (years of life lost due to premature mortality) and DALY (disability adjusted life years) due to cancer burden are higher in men than in women too. Therefore, cancer is a major public health problem and action needs to be taken for prevention.

Data from WHO 2007 showed the most common cancer in men by number of global deaths are lung, stomach, liver, colorectal, oesophagus and prostate while the incidence of cancer by site from GLOBOCAN 2002 are more common in cancers of the lung, prostate, stomach, colorectal and liver.

Screening reduces morbidity and mortality using Wilson's criteria. Of all common cancers in men, only colorectal cancers are recommended for screening although cost effectiveness of screening needs to be assessed in Asian countries. Screening options for colorectal cancer include fecal occult blood testing, flexible sigmoidoscopy, colonoscopy, and double-contrast barium enema. Screening for prostate has not been recommended due to lack of evidence that screening improves health outcomes. However, prostate specific antigen screening for prostate cancer has been practiced widely, and if performed, patient should be informed of its potential benefits and harms.

Lunch Symposium - Erectile Dysfunction, Testosterone, and Underlying Conditions

(Sponsored by Bayer Schering Pharma)
Prof Farid Saad, Germany / Prof Michael Zitzmann, Germany / Prof Abdulmaged Traish, USA /
Prof Aksam Yassin, Germany

Until a decade ago the ailments of elderly men, such as atherosclerosis, hypertension, diabetes mellitus, lower urinary tract symptoms and erectile dysfunction, were regarded as distinct diagnostic / therapeutic entities but there is growing understanding that these entities are not disparate and, to improve the health of the aging male, require an integral approach. There is an interdependence between the metabolic syndrome, erectile dysfunction and patterns of testosterone in aging men. The main features of the metabolic syndrome are abdominal obesity, insulin resistance, hypertension and dyslipidemia, significant factors in the etiology of erectile function. The metabolic syndrome is associated with lower-than-normal testosterone levels. A new concept of the role of testosterone in male health has emerged. Testosterone is a determinant of glucose homeostasis and lipid metabolism. Testosterone is not only a factor in libido but exerts also essential effects on the anatomical and physiological substrate of penile erection. With these recent insights, the health problems of elderly men must be placed in a context that allows an integral approach. Treatment of testosterone deficiency is to become part of this approach. Sexual health may be the portal to men's health. Hypogonadism and erectile dysfunction are epidemiologically associated with and may predict metabolic syndrome and diabetes type 2. More interventional studies are needed to determine the relationship between testosterone and diabetes mellitus and the metabolic syndrome and to assess the benefit / risk ratio of testosterone therapy in men with hypogonadism, diabetes and the metabolic syndrome. Treatment of erectile dysfunction may entail testosterone administration and these interventional studies may provide an opportunity to determine therapeutic and preventive feasibility, benefits and justification of testosterone administration on the closely interrelated ailments of erectile dysfunction and the metabolic syndrome.

Sports Injuries

Dr Tan Jee Lim
Gleneagles Medical Centre, Singapore

Sports play an important role towards a healthy active lifestyle. We have seen an increase in sports injuries with the greater participation in sports among men. In the management of sports injuries, precise diagnosis is important as many other conditions mimic sports injuries.

Sports injuries are notorious for its propensity to recur after treatment. The key in the management of sports injuries is to identify and eliminate the root cause. This requires a good understanding of the sports, biomechanics and the identification of erroneous moves that cause the injury.

An ounce of prevention is better than a pound of cure. Most sports injuries are preventable. Understanding safe sports practices, realistic goal-setting and disciplined approach to sports will help to promote a safe and injury-free sporting active life.

Non Illness Related Premature Death & Disabilities in Men

Prof Goh Lee Gan
National University of Singapore, Singapore

Workplace Injuries and Safety

Prof Goh Lee Gan
National University of Singapore, Singapore

Managing the Aging Prostate

Dr Ng Foo Cheong
Changi General Hospital, Singapore

Benign prostatic hyperplasia (BPH) affects men from the age of 50 years. Benign prostatic enlargement leads to lower urinary tract symptoms and bladder outlet obstruction. There is an impact on the quality of life and a risk of developing BPH-related complications.

There are currently many therapies for established BPH, ranging from efficacious medications (uroselective alpha-blockers and 5-ARIs) to surgical interventions, such as transurethral prostatectomy, various laser and heat modalities.

When managing the ageing prostate, there are possible strategies to consider. There is some evidence for lifestyle changes including dietary modification and weight reduction, although there are currently no guidelines for these recommendations in BPH. Medical treatment with 5-alpha reductase inhibitors (5-ARIs) reduces the long-term risk for acute urinary retention and BPH surgery; however, the role of such drugs in the prevention of BPH is not established. Intrinsic risk factors for BPH, such as genetic predisposition and race, are non-modifiable.

Incontinence in Aging Male Incontinence from Overactive Bladder

Dr Toh Khai Lee
Tan Tock Seng Hospital, Singapore

Incontinence from BPH

Dr David Consigliere
National University Hospital, Singapore

Urinary incontinence has a significant impact on the patients' quality of life. The most common types of urinary incontinence related to BPH are urge incontinence, overflow incontinence, and incontinence after TURP.

In men, urge incontinence is primarily due to bladder irritation from benign prostatic hypertrophy (BPH). A primary care provider can diagnose overactive bladder by taking a complete medical history and using a symptom assessment chart or a bladder diary. In some patients, a focused physical exam of the lower urinary tract, including neurologic assessment of the lower limbs and perineum, may also be needed. If a definitive diagnosis still cannot been made, the patient should be referred to a specialist for urodynamic assessment. The most effective treatment for urge incontinence is a combined approach using behavior modification and medication, pelvic muscle exercises and bladder training. Surgical options are rarely considered in the treatment of urge incontinence owing to the relative success of non-surgical intervention.

Overflow incontinence is associated with increased volume of residual urine and an impaired contractility of the bladder. In the majority of cases, this condition occurs secondary to BPH with outlet obstruction. Overflow incontinence can also occur as a result of a weak detrusor muscle. The absence of the strong desire to urinate may be useful for patients to differentiate overflow incontinence from urge incontinence.

The specific incidence of post prostatectomy incontinence is difficult to ascertain. The most significant risk factors include pre-existing detrusor and/or sphincter dysfunction, increasing age, and surgical expertise. Management options include behavioral techniques, pharmacologic therapy, surgical intervention, and other supportive measures.

Post-Surgical Incontinence
Prof Apichat Kongkhanand
Chulalongkorn University, Thailand

Big boy don't cry: What makes a man
A/Prof Chirk-Jenn Ng / Dr Wah Yun Low
University of Malaya, Malaysia

Masculinity means different things to different people. In relation to men's health, studies have shown that men die younger than women; they utilize healthcare services less often, have less physician contacts and health screenings, and are less concordant with medical treatment compared to women. Moreover, men engage less in health-promoting and preventive practices; they take on more risky activities and, hence, have significantly more injuries; men do not adhere to medical compliance.

The conventional masculinity concept and gender-role identity have put significant demands on men and this has led to negative psycho-social and health outcomes in men. There is a need to understand men and the concept of masculinity from the social constructive theory and the gender viewpoint. Culture also plays a very important role in shaping men's gender roles.

Findings from the Asian MALES study will be used to illustrate some of these attributes of male identity in the Asian context. This survey of 10934 men, aged 21-75 years old, was conducted in China, Japan, Korea, Malaysia and Taiwan. It revealed that the relative importance of each male identity attribute differed across Asian men. The top three most important attributes were having a good job, being seen as a man of honor, and being in control of one's life. Male identity attributes such as "coping with problem", "being in control" and "respect from friends" were considered important regardless of age, employment or marital status. The importance of career and financial status decreased significantly with age; but physical attractiveness, sexual performance and success with women were significantly more important to older men. The study also found that masculinity was influenced by socio-demographic parameters, lifestyles and stress. Findings from this study provide useful insight into Asian men's perception of masculinity and inform future studies on men's health-seeking behavior and their impact on health outcomes. Understanding the masculinity concept could provide an important link to Asian men's health.

Men, Marriage and Divorce
Dr Maliki Osman
Ministry of National Development, Singapore

Homosexuality: From a Social Perspective
Dr Ang Yong Guan
Paragon Medical, Singapore

Risk factors and genetics of suicide

Dr Tan Ene Choo
K K Women's and Children's Hospital
Singapore

There is high variability in suicide rates across different age groups, gender, and countries, with elderly men having the highest suicide rate in many different studies. We will look at suicide trends, review the different factors which have been associated with suicidal behaviour such as geographical patterns, demographic and socioeconomic factors, prevalence of medical and mental illness; and also examine the evidence for the familial influence on suicidal behaviour. Molecular approaches to study the genetics of suicide will be described, with updates on research findings focusing on specific genetic risk factors. Insights gained from expression profiling and association studies on gene variants will lead to increased understanding of the molecular basis of this human behavioural disorder.

Substance abuse and Men

Dr Muni Winslow
Institute of Mental Health, Singapore

Men and Violence

Ms Pang Kee Tai
Centre for Promoting Alternatives to Violence, Singapore

In working with families who experience domestic violence, it is not uncommon to hear wives and children of male perpetrators comment “I don’t know why he is doing this to hurt us... do you think he is mad or has some illness?” “Why doesn’t he see that he needs help?”

In the helping profession men very rarely initiate contact for issues involving the family. In the area of family violence, however, figures from Singapore’s specialised Centre for Promoting Alternatives to Violence (PAVe) have seen changing patterns of help-seeking behaviour among men. There is an equal number of men who are mandated to attend counseling by the family court as are there men who are coming in voluntarily to seek help for their violent behaviours.

This paper discusses health issues that men present when they come for counseling, their restraints and motivations towards change and strategies that PAVe has used to engage them to seek help.

Women’s Perspectives on Men’s Health

Dr Balasubramanian Srilatha
National University of Singapore, Singapore

Disorders of sexual function not only impair the quality of life in men but also have a negative impact on the inter-personal relationship with the female partners. In the younger age groups, the additional concerns impinge on the need for procreation and fertility. In older age groups, these problems are superimposed on hormonal declines in either gender. Although sexual dysfunction is not an inevitable consequence of aging, a number of predisposing factors in the elderly including psychological and physical changes and prescription drugs may be causal. With successful management outcomes from the available therapeutic measures such as PDE5 inhibitors, the sexual quality of life of the couple per se has greatly improved over the recent years. For instance, it was shown that the treatment-related improvement in the male sexual functioning consistently determined the female partners’ sexual response, satisfaction and the quality of relationship.

Although much consideration is given to the contributing factors for sexual dysfunction in men, fewer studies have thus far looked into the emotional and physical impact of these disorders in the female partners. Clinically, significant number of women has presented with declines in the important domains of the sexual response cycle including desire and arousal as an adverse effect of the male partner’s erectile dysfunction. In some cases, these issues may be further aggravated by the women’s negative attitudes including stigma and the perception of males seeking treatment for these complaints. Therefore, an essential and shared approach in the management of male sexual disorders is couple therapy. The inclusion of the woman partner in a clinical setting would aid in better understanding and delineation of the causative factors including female sexual disorders, if any. It may also ensure quality support for drug compliance and successful treatment outcome in the male.

Crime and Men
Mr Subhas Anandan
Khattar Wong & Partners, Singapore

Definition of crime and some of the reasons why men commit offences fully knowing the consequences of their actions. The lecture will concentrate on 2 categories of crime - crime against the person and crime against property. It is impossible to discuss all crime against men and property so will concentrate on the more serious offences like murder, rape, cheating and criminal breach of trust. Due to the time constraint, topics will be touched on briefly and depending on the interest of the people attending, certain topics will be discussed at a greater length then others.

Finally, the purpose of the lecture is to try and give those attending a general overview of the crime scene in Singapore.

Low Birth Rates, Men and Reproduction
Prof Jose Albert C. Reyes III
Philippines

Male Sexuality Fertility Equation

Prof P Ganesan Adaikan
National University of Singapore, Singapore

From time immemorial, man had always been entangled in the web of strong procreative instinct as the pillar of his existence in this planet. In his quest for achieving the continuity of his linage, he has to compete, fight with other men, rape, or even enter into war with other countries. As an individual, he has to be perceived as a capable provider and father before he can be attracted to the woman he desires. In order to achieve the success of the survival of the species, he has to be continuously reminded of the bestowed bonuses in the form of love, intimacy, sex and satisfaction. Hence, if he is unable to achieve an erection or ejaculate appropriately or if the desire is unduly compromised due to hormone upheavals, his fertility may suffer leading to serious implications on the quality of couple relationship. The sexual problems may be independent or inter-dependent with abnormalities in sperm parameters and fertility or sexual issues in the female partner.

With the shifting priority and changes in gender roles over the century and the ready availability of contraceptives and antibiotics have created the choice of freedom of sexuality without reproduction. Hence, the last century also probably saw more openness for the understanding of recreational sexuality. Conceivably, the socio-economic changes from farming to fast food culture coupled with modern lifestyle factors have contributed to an increase in proportions and demand for understanding of the psychogenic and organic causes of various sexual dysfunctions in either gender.

In general, man derives satisfaction from giving pleasure to his partner and meeting her expectation is very important to him. Therefore, when sexual dysfunction strikes, the sufferer feels that he is letting his partner down and this thought can affect the quality of life with deep emotional impact and loss of self esteem. In a stable relationship, this can create a downward spiral leading to withdrawal, isolation and depression. The present-day treatment options and the awareness have brought back the feelings of intimacy in couple relationships. Together with specific treatment for the different types of sexual disorders, it is imperative to address inter-personal issues and impress upon the need for lifestyle modifications and stress control for long-term successful outcomes in the context of both procreational and recreational sexuality.

Genes and Male Reproduction

Prof Yong Eu Leong
National University Hospital, Singapore

Androgens such as testosterone are critical for male reproduction and sexual function.

All androgens act through a single intracellular androgen receptor (AR) which is encoded by a single-copy gene in the X-chromosome. Disruption of the AR by genetic mutations results in complete androgen insensitivity syndrome (AIS) and the female phenotype in otherwise healthy 46XY individuals. Although complete AIS is the best known phenotype, recent studies from our laboratory and elsewhere, show that malfunction of the AR are associated with many androgen-regulated diseases/conditions that cross traditional clinical disciplines ranging from pediatrics (ambiguous genitalia), gynecology (primary amenorrhea), urology (prostate cancer), neurology (spinal bulbar muscular atrophy), reproductive medicine (male infertility, polycystic ovarian syndrome), orthopedics (rheumatoid arthritis), oncology (breast cancer) and dermatology (hirsutism/baldness/acne). Of particular interest is the role that polymorphic CAG trinucleotide repeat tracts and subtle mutations in the AR ligand-binding domain, have in the etiology of male infertility and prostate cancer, two conditions affecting large numbers of patients. Novel mechanisms of pathogenesis have been uncovered in these cases and they reveal unexpected functions of the AR hinge subdomains and involve unexpected protein-protein interactions with co-regulator (activators and repressors) molecules. Knowledge of the critical role that the AR plays in the pathogenesis of these diverse conditions has led to improved diagnostic methods and successful therapy for disorders of male reproduction.

The Seminal Analysis – What criteria?

Ms Angela Ho
Centre for Assisted Reproduction Pte Ltd, Singapore

Treatment of Male Reproductive failure

Assoc Prof George Lee
University of Malaya, Malaysia

Approximately 20% of infertility is entirely due to male factor, with an additional 30-40% of cases involving both male and female factors. Therefore, male factor is present in half of all infertile couples. The approach to evaluate male reproductive failure should begin obtaining thorough medical history, followed by focused physical examinations and targeted laboratory investigations. Ideally, the assessment should identify the specific abnormality responsible for the fertility. The goals of the evaluation are to identify the reversible and non reversible causes of male reproductive failures. The assessment should also detect significant medical pathology and the possible genetic or chromosomal abnormalities that may affect the future generations. Reversible causes of male reproductive failures such as varicocele, ductal obstruction and infection can be effectively treated. Non reversible causes of male reproductive failure may be managed by Assisted Reproductive Technique (ART) or donor insemination. When possible treatment should be directed to specific aetiology, however, empirical therapies and ART such as Interuterine Insemination (IUI) and In Vitro fertilization (IVF) may be of value in the absent of known aetiology. The past decades has seen the refinement in reproductive techniques, with the use of spermatozoa recovered from the men for intracytolasmic Sperm Injection (ICSI). In the past few years, there has been steady advancement in the understanding of the multiple factors that contributes towards the male reproductive failure, including the genetic abnormality and the effect of the lifestyle and environmental gonadotoxin, As we gain further understanding of the underlying causes of male infertility, treatment options should improve with the development of therapies designed for specific defects in male reproductive failures.

Laboratory Assessment of Testosterone and Thresholds for Androgen Deficiency

Prof Farid Saad
Corporate Strategic Marketing Schering AG, Germany

A pivotal question is whether the age-related decline of testosterone must be viewed as hypogonadism, i.e. a deficiency of testosterone manifesting itself with signs and symptoms of insufficient androgen action, and in the best case reversed by testosterone treatment. There is no clear dividing line in normal and subnormal blood testosterone levels establishing with certainty whether a man is hypogonadal or not. Rather, symptoms accumulate gradually with decreasing testosterone levels, with the levels of testosterone differing between individuals and within a subject not all symptoms of testosterone deficiency will manifest themselves at the same blood testosterone levels.

The diagnosis of late onset hypogonadism (LOH) and, certainly, the decision to provide androgen treatment must be made with caution, taking the specific increment of symptoms in relation to testosterone levels into account. The various symptoms of LOH might start at various concentrations of androgens. With a given plasma testosterone level, some complaints might be present and others not. This has also been confirmed in studies establishing symptom-specific thresholds of androgen levels.

Symptoms of LOH do not manifest themselves at uniform threshold values of testosterone. Testosterone exerts most of its actions via testosterone receptors leading to gene transcription though some effects are non-genomic membrane effects. Complete or partial dysfunctions of the androgen receptor are associated with clinical syndromes, such as the androgen insensitivity syndrome or the Reifenstein syndrome. The gene for the androgen receptor is located on the X-chromosome. In exon 1 there is a variable number of CAG triplet repeats. The higher the number of CAG repeats, the lower the transcriptional activity of the androgen receptor. Therefore, symptoms of testosterone deficiency are not uniformly and predictably related to values of blood testosterone, which may lead to different diagnostic criteria for testosterone deficiency. So, the conclusion seems inevitable that the clinical manifestations of hypogonadism are multifactorially determined and that the diagnosis should not only depend on the measurement of testosterone but proper assessment should comprise somatic and psychological aspects in addition to measurement of testosterone.

Assessing Age-Related Metabolic and Hormonal Changes Laboratory assessment

Dr Wong Moh Sim
Alexandra Hospital, Singapore

Advances in medicine have dramatically increased life expectancies in many countries. It is increasingly recognized that an extension in life expectancy should be associated with useful independent life or Quality of Life, defined by the World Health Organisation as 'the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1947).

Studies have shown that aging is associated with changes in various body systems and functioning. Body composition alters with age, with an increase in fat mass and decrease in lean body mass. Changes in glucose, lipid and gonadal metabolism have also been reported. Endocrine changes in older individuals incorporate menopause in women, androgen deficiency in men, osteopaenia and osteoporosis, and decreased growth hormone serum concentrations.

Adrenal function increases with advancing age. Overall concentrations of thyroxine and tri-iodothyronine do not appear to change with age although the prevalence of thyroidal disease increases with age. Serum growth hormone concentrations have been reported to decline with age, beginning in the third decade. The prevalence of type 2 diabetes mellitus is age-related and has been reported to be secondary to impaired insulin secretion, impaired non-insulin-dependent glucose disposal, insulin resistance and increased hepatic gluconeogenesis. Recognition of aging on various body processes allows risk factors for individuals predisposed to general frailty syndromes to be identified early and managed appropriately. Laboratory results in the elderly must, thus, be carefully interpreted in the context of their clinical conditions as these values may be complicated by multiple co-morbidities and polypharmacy.

Salivary hormone testing – Testosterone and Other Hormones

Dr Jean-Paul Deslypere
Asia Pacific SGS Life Sciences Services Geneva & Singapore, Singapore

The notion of an andropause or male menopause, or as it is termed now late onset hypogonadism (LOH)t rarely viewed with some skepticism by the medical profession (1) This is a concept that all too readily lends itself to opportunistic exploitation by anti-aging entrepreneurs, usually working outside the public health sector, who tout “rejuvenation cures”. The history of this field, which includes names like Voronoff and Lespinasse and, surprisingly, even such reputable scientists as Brown-Sequard and and Steinach, is indeed not illustrious. It is feared that those who peddle the indiscriminate use of androgens, growth hormone, melatonin and adrenal androgens will perpetuate this quackery in the present time. Only well-designed studies into the endocrinology of aging, with clear clinical objectives and proper terminology, can ensure that history does not repeat itself and that the baby is not thrown out with the bathwater. Questions who will benefit from testosterone treatment are therefore timely and important. The issue has been addressed by a vast number of professional organizations and the guidleines for responsible treatment of elderly men have been formulated (1,2). There is no clear dividing line in normal and subnormal blood testosterone levels establishing with certainty whether a man is hypogonadal or not. Rather, symptoms accumulate gradually with decreasing testosterone levels, with the levels of testosterone differing between individuals and within a subject not all symptoms of testosterone deficiency will manifest themselves at the same blood testosterone levels.

In conclusion: andropause, or better, LOH,is a clinical reality and since most men are not treated for it, also a business opportunity.

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(2) Nieschlag E, Swerdloff R, Behre HM, Gooren LJ, Kaufman JM, Legros JJ, et al. Investigation, treatment and monitoring of late-onset hypogonadism in males. Aging Male. 2005 ;8:56-8.
(3) Bhasin S, Cunningham GR, Hayes FJ, Matsumoto AM, Snyder PJ, Swerdloff RS, et al. Testosterone therapy in adult men with androgen deficiency syndromes: an endocrine society clinical practice guideline. J Clin Endocrinol Metab. 2006 ;91):1995-2010.

Somatotroph axis and "Somatopause"

Dr J J Mukherjee
National University Hospital, Singapore

The somatotroph axis (GH/IGF-I axis), consisting of pituitary-derived growth hormone (GH) and predominantly hepatic-derived insulin-like growth factor-I (IGF-I), is the key determinant of growth and development during childhood and adolescence, resulting in linear growth and somatic development. GH secretion rate is high at birth, gradually declines during the neonatal period, remains fairly constant until the onset of puberty, when it increases by 2-3 folds. Following that, GH and IGF-I concentrations decline exponentially with age, beginning in young adulthood; with each advancing decade, GH production rate decreases by 14%. This age-related decline in the activity of the somatotropic axis has been termed somatopause. Whether this decrease in GH secretion should be treated to reduce or delay the effects of aging is debatable.

Growth hormone deficiency (GHD) is a well-established disease entity in childhood that results in short stature. GH replacement in GHD children results in an increase in growth velocity and final adult height. GH is also registered for use in children with short stature associated with chronic renal disease, Turners' syndrome, small size for gestational age, Prader-Willi syndrome, and recently, idiopathic short stature. Since 1989, Adult GH deficiency syndrome (AGHD) has been recognized as a clearly defined clinical and biochemical state that is associated with specific abnormalities, most of which are reversed by GH replacement. All recommendations necessitate a clear biochemical diagnosis of GHD, confirmed using various stimulation tests, in adults with pituitary-hypothalamic disease prior to initiating GH replacement. GH treatment of AGHD was approved by the FDA in 1996.

Aging, in contrast, is currently not a registered indication for GH administration. The FDA published an alert last year mentioning that body-building, enhancement of athletic performance and anti-aging are not approved indications of GH replacement. However, this has not deterred the continued off-label prescription of GH to prevent or reverse the effects of somatopause. The reason for this practice stems from the fact that there are some phenotypic similarities in the changes in body composition associated with aging with those seen in patients with AGHD; this, together with the continued decline in GH production with aging, and the established beneficial effects of GH replacement in patients with AGHD, led some to postulate that GH administration in healthy elderly subjects might result in prevention or reversal of effects of aging. Although a few studies, which have included a small number of subjects who have been followed for a short duration, have shown that treatment of healthy elderly subjects with GH increased skeletal muscle mass and skin thickness, and decreased fat mass, concerns remain regarding the worsening of glucose tolerance and an increase in the risk of malignancy. Moreover, these studies have failed to demonstrate significant improvement in muscle strength and function in the healthy elderly subjects. The effect of GH replacement on clinically important outcomes in the healthy elderly subject, such as independent living, remains unclear. To complicate matters further, recent animal studies have suggested that GH deficiency, GH resistance, and reduced IGF-I signaling are associated with delayed aging and extended longevity. Therefore, a simplistic approach of GH administration to healthy elderly subjects might not lead to painless reversal of aging and rejuvenation.

In summary, GH administration is approved for use in both children and adults with specific indications. Studies are in progress for potential new indications, including its use in aging, and recommendations should wait till the results of these studies are clear and properly evaluated. The risk/benefits ratio associated with GH administration to the healthy elderly subject is currently far from clear.

Adrenal steroid axis and "Adrenopause"

Prof C Rajasoorya
Alexandra Hospital, Singapore

The human adrenal gland has two functional divisions – the outer cortex and the inner medulla that differ embryologically and physiologically. Both functional divisions secrete important hormones essential for life. The array of adrenal steroid hormones is grouped as glucocorticoids, mineralocorticoids, and adrenal androgens produced respectively by the zona glomerulosa, fasciculata and reticulosa. Glucocorticoids are regulated by the hypothalamus and the pituitary. Mineralocorticoids are regulated by the renin-angiotensin system. The regulation of adrenal androgens is less clear – ACTH plays an important role in stimulation but other factors from both extra- and intra-adrenal regions (Oestrogens, Insulin, growth hormone, prolactin, beta endorphins, Corticotrophin releasing hormones and growth factors) are thought to influence these. Remarkably adrenal androgen production (mainly DHEA and DHEAS) is influenced by age specific secretion profiles - adrenarche (onset of production) begins at the age of 6-8 years; this phase is followed by a gradual but definite decrease after the age of 30 years to reach a level about 15% of peak levels during the ninth decade of life– often termed "adrenopause". This age related change is not very evident for glucocorticoids and mineralocorticoids. The age-related decline in DHEAS concentration, which parallels the physical and cognitive changes of aging, prompted speculation that these two events are causally related. High DHEA levels are associated with longevity in both humans and primates in observational studies and DHEA given to rodents appears to have some benefits on age-related changes. On the basis of observational data in primates and experimental data in rodents, DHEA has been touted as an 'anti-ageing' hormone and used widely. Hypoadrenal subjects consistently score lower on self reported measures of quality of life, well-being, mood and sexual function despite glucocorticoid and mineralocorticoid replacement. The data regarding psychological, cognitive and sexual benefits of DHEA replacement are, however, conflicting.

Appetite Regulation in the Elderly

Dr Richard Chen
Changi General Hospital, Singapore

Appetite regulation is a complex and dynamic process that constantly evolves with age. In the young, this process serves to maximize energy stores and balance against energy expenditure. Appetite drive is regulated centrally in the hypothalamus, where the hunger centre of the Lateral Hypothalamic Area (LHA) stimulates appetite, while the satiety centre of the Ventromedial Nucleus (VMN) inhibits food intake. These centres are driven by neuropeptides as well as gut hormones. Neuropeptide Y (NPY) and Agouti-related peptide (AgRP) from the Arcuate Nucleus, as well as ghrelin peripherally from the upper gastrointestinal tract, are potent orixigenic signals that are up-regulated during hunger states which, in turn, act on the hypothalamus to trigger food intake. Efferent signals are also relayed to the Nucleus of the Tractus Solitarius (NTS) in the brainstem to enhance visceral sensation of foods and smells, further generating appetite.

However, even as food intake is commencing, opposing anorexigenic signals, which are suppressed during hunger, begin to come into play. Melanocortin pathways, originating from the pro-opiomelanocortin (POMC) nucleus (also located within the Arcuate Nucleus), exert anorexic influence on the VMN, which, in turn, inhibits signaling to the NTS. Gastrointestinal mechanical and humoral factors also perform important functions. As food is propelled into the small intestine, gut hormones such as cholecystokinin (CCK), glucagons-like peptide 1 (GLP-1), and peptide YY (PYY) are produced locally. They reduce the rate of gastric emptying, which potentiates antral filling and distension that, in turn, enhances the perception of fullness and satiety. These mechanical factors also stimulate the vagus nerve to inhibit the NTS, thus reducing appetite. The action of gut hormones, particularly CCK, is potentiated by leptin, which is also capable of directly inhibiting NPY and AgRP.

Energy intake decreases with increasing age in both men and women. This is due to reduced energy requirements (because of lesser amount of physical activity) as well as age-related changes in appetite regulation. Higher levels of, and greater sensitivity to, CCK reduce gastric emptying rates, promoting antral distension, leading to earlier satiety and fullness. At the same time, response to hypothalamic orexigenic stimuli, particularly cocaine-amphetamine regulated transcript (CART), in older persons are markedly suppressed. Furthermore, down-regulation of NPY, increased expression of cytokines and anorexigenic pathways, and reduced sensitivity to taste and smell all combine to reduce feeding drive. As testosterone correlates positively with NPY, and inversely with CART, the relative androgen deficiency of ageing in men may potentiate further appetite suppression. Increased visceral adiposity of ageing, aggravated by declining testosterone levels, promotes leptin and PYY activity which also suppresses appetite. These physiological changes, dubbed the “Anorexia of Ageing”, may lead to sarcopenia and frailty in susceptible older individuals.

On the other hand, it is well established that central obesity increases with age, concordant with the increase in prevalence of metabolic syndrome. In men, the decline in energy expenditure with ageing, combined with the tendency towards central adiposity that is aggravated by declining androgen levels, predisposes individuals to the development of obesity, especially if calorie intake is excessive. Overactive endocannabinoid (EC) systems in susceptible individuals disinhibits eating, leading easily to obesity. This is evidenced by higher levels of ECs and their receptors in obese persons. Gut hormones are responsible for sustaining obesity: post-prandial suppression of ghrelin is less, while levels of CCK, PYY and GLP-1 are lower. These act to reduce appetite suppression, allowing the individual to eat more. Weight loss actually results in higher ghrelin levels, indicating the importance of ghrelin in maintaining energy balance. The action of gut hormones explains why obese individuals rapidly regain any weight that is lost through dieting and exercise, once these measures are stopped. That bariatric surgery (particularly gastric bypass), the single most effective tool in treating morbid obesity, markedly lowers ghrelin, restores normal post-prandial ghrelin suppression, and elevates levels of PYY and GLP-1 underscores the major role of gut hormones in obesity.

Taking into account these physiological changes, clearly the route towards healthy and robust ageing is to exercise some degree of calorie restriction, commensurate with energy expenditure, combined with resistance training to avoid sarcopenia.

Psychological Co-relates of Ejaculatory Disorders
Prof Calvin Fones
Gleneagles Medical Centre, Singapore

Ejaculatory disorders include premature ejaculation (poor ejaculatory control) and delayed ejaculation or anejaculation (male anorgasmia).

Ejaculatory control is influenced by a combination of biological, psychological and social/interpersonal factors. This affects our understanding of the patho-aetiology of ejaculatory disorders and guides our treatment approaches.

Psychological factors which contribute to ejaculatory problems include sexual anxiety (including performance anxiety), stress and depression.

Relationship issues with the partner also affect including, problems in emotional intimacy, unresolved couple conflicts, poor communication and low sexual desire.

Delayed ejaculation may be related to overcontrol of sexual arousal related to guilt, sexual inhibitions or repression and relationship conflicts.

Relationship factors include lack of sexual desire in the partner, perception that the partner has low sexual satisfaction or poor orgasmic response.

An understanding of the psychological correlates of ejaculatory disorders allow for proper targeted interventions to be optimally utilised for treatment of couples.

Premature Ejaculation
Prof Siegfried Meryn
International Society of Men's Health & Gender, Austria

Other Ejaculatory Disorders
Dr Lim Kok Bin
Singapore General Hospital, Singapore

New Approaches To Erectile Dysfunction- The Road To Satisfaction!
Dr Rosie King
Australia

Recent Advances in the Treatment of Hypogonadism

Dr Jean-Paul Deslypere
Asia Pacific SGS Life Sciences Services Geneva & Singapore, Singapore

Over the past 2 decades a number of advances have been made in the treatment of male hypogonadism. There are now treatment options which fulfill the criteria for testosterone (T) replacement (physiological plasma T levels over the full 24 hours of the day, high safety; normal concentrations of the conversion products of T, dihydrotestosterone (DHT) and estradiol.

With transbuccal administration of T resorption is through the oral mucosa avoiding intestinal absorption and subsequent hepatic inactivation of testosterone. 30 mg of testosterone formulated as a bioadhesive buccal tablet twice daily generates plasma T and DHT levels in the normal range. Testosterone can be delivered to the circulation through the intact skin, The early patches have largely been relinquished. T gel hydro-alcoholic, 1% (10 mg testosterone per gram gel) and administered between 5 and 10 g of gel a day, amounting to 50 and 100 mg T. The clinical efficacy of transdermal T gel on various androgen dependent target organ systems has been very well documented. The safety profile showed that PSA levels rose in proportion to the increase of T levels but did not exceed normal values. Skin irritation was noted in 5.5% of patients. Transfer from person to person appeared insignificant. With conventional parenteral T preparations plasma T levels fluctuate strongly. They yield transient supraphysiological levels the first 2-3 days followed by a steady decline to subphysiological levels just prior to the next injection. Parenteral testosterone undecanoate (TU) is a new treatment modality. After two loading doses of 1000 mg TU at 0 and 6 weeks, repeated injections at 12 week intervals are sufficient to maintain testosterone levels in the reference range of eugonadal men. Symptoms of T deficiency accumulate gradually with decreasing T levels, with the levels of T differing between individuals and within a subject not all symptoms of T deficiency will manifest themselves at the same blood T levels. So, while the above T preparations fulfill the criterion of restoring T levels with the reference range, experience will teach whether the achieved levels are able to repair T deficiency for all symptoms in all patients.

Male Osteoporosis

Dr Leonard Koh
Gleneagles Medical Centre, Singapore

Osteoporosis is a significant clinical issue in men. In 2000, an estimated 40% of all fractures, 30% of hip fractures and 40% of vertebral fractures worldwide occurred in men. Mortality after hip and vertebral fractures is greater for men than women. In men, bone loss occurs with age, with trabecular bone loss beginning in young adult life and cortical bone loss beginning after mid life, while periosteal apposition occurs. Age-related bone loss is believed to be mediated by factors such as changes in sex steroid and other hormone levels, and nutrition. Secondary causes of osteoporosis contribute significantly to the pathogenesis of osteoporosis and fractures in men. Clinical screening strategies may be useful in the detection of osteoporosis before fractures occur. Although there is ongoing debate regarding diagnostic criteria for defining osteoporosis in men, gender-specific reference ranges for bone mineral density (BMD) by dual-energy x-ray absorptiometry are commonly used. There have been few trials on osteoporosis therapies in men, mostly in small numbers, with BMD as the end-point. The bisphosphonates, alendronate and risedronate, and parathyroid hormone improve bone density and appear to reduce vertebral fractures in men. Initiation and persistence of therapy after fractures is low among men. Increasing awareness of osteoporosis in men is important for the prevention of fractures in the aging male population.

Nutrition and Aging: What works?

Dr Christopher Lien
Changi General Hospital, Singapore

Exercise prescriptions for aging individuals

Dr Benedict Tan
Changi General Hospital, Singapore

Exercise is an important component in the prevention and management of the comorbidities associated with ageging. With ageing, physiological changes occur in the body, but these can be prevented or even reversed with exercise. A holistic approach to exercise intervention in the ageing individual will need to address cardiovascular fitness, strength development, postural stability, flexibility, and psychological function. Apart from targeting these parameters, the exercise prescription needs to be customized to the individual, especially since baseline fitness parameters vary greatly from individual to individual. One needs to be aware of the absolute and relative contraindications to exercise, and adapt the exercise programme accordingly. Frailty or extreme age is not a contraindication to exercise, but specific modalities need to be altered to accommodate individual disabilities. Sedentarism appears a far more dangerous condition than physical activity in the very old. Safety guidelines, such as pre-participation screening, and practical pointers on prescribing exercise in the ageing individual will be discussed.

Articular Cartilage Regeneration with Stem Cells

Dr Saw Khay Yong
Kuala Lumpur, Malaysia

Degenerative joint disease results from a breakdown involving the articular cartilage. The articular cartilage is devoid of blood supply, lymphatic drainage and innervation. As the chondrocytes are surrounded by the extracellular matrix without any blood supply, they are ineffective in responding to any injury unless the subchondral bone is penetrated. Therefore, in partial thickness injury to the articular cartilage, there is no response to injury whereas a full thickness defect penetrating into subchondral bone will allow access to bone marrow stem cells which then initiates a process of cartilage repair.

In established chondral injuries to the knee joint, non-surgical treatment which includes physiotherapy and medication do not allow healing to the cartilage defects. On the other hand, current established surgical options for example ACI (Autologus Chondrocyte Implantation) and OATS (Osteochondral Autogenous Transfers) are not entirely satisfactory.

Recent published evidence suggested that it may be possible to regenerate a better cartilage by performing subchondral drillings to cartilage defect and post operatively induce cartilage regeneration by intra-articular injection of a combination of stem cells together with hyaluronic acid. Animal studies initiated by doctors from KLSMC (Kuala Lumpur Sports Medicine Centre) and the orthopaedic department of University Putra Malaysia and veterinary hospital showed that it was possible to regenerate a better cartilage by the combination of bone marrow stem cells and hyaluronic acid into the defective areas following subchondral drillings.

A pilot study on clinical patients commenced following the animal work whereby cartilage defects seen during arthroscopic surgery was followed by subchondral drillings. The drillings into the bone marrow would allow the formation of a blood clot scaffold. Post operatively, patient will undergo peripheral blood stemcells harvesting. A week after surgery, a mixture of peripheral blood stemcells together with hyaluronic acid will be injected into the affected joint. This would be a weekly injection for 5 weeks.

Second look arthroscopy and biopsies showed evidence of hyaline cartilage regeneration. Regular MRI scans at intervals showed satisfactory healing of the chondral defects including the subchondral bone. In additional to isolated chondral defects, this new found procedure also allows the subchondral drillings to be applied to multiple areas of chondral defects. With the post operation injections of a mixture of stem cells and hyaluronic acid, no second surgery or open surgery is required as in the case of ACI.

Journal of Men's Health and International Society of Men's Health Lecture
The Global Case for Action: Acknowledging Poverty as a Determinant of Men's Health

Dr April M W Young
Collins Center for Public Policy, USA

It is well documented that unmet and under-served health needs among men result in avoidable mortality and morbidity, increase medical costs to health systems, and ultimately pose significant public policy challenges. Strong evidence also indicates that disparities in health outcomes among men occur along the social fault lines in nations around the world. Income; race, ethnicity, and language group; immigration status; sexual orientation; and other phenomena emerge consistently as categories of social marginality. Quite predictably, these categories are seen to function within men's health profiles as markers of vulnerability. Data from around the world will be presented, advancing the argument via particular examples from Asian countries, that men's health researchers, practitioners, and advocates from Asia should be part of a global discourse and call to action on the health of poor men. By focusing in a globally coordinated fashion on the social determinants of health--especially poverty--and the health disparities among men that correlate with marginality, the field of men's health can contribute directly to policy agendas for structural reform, global cooperation, and social justice.

What Does Retirement Hold for the Aging Man?

Prof Akihiko Okuyama
Osaka University Graduate School of Medicine, Japan

Japanese population is rapidly getting older. The proportion of people aged above 65 years old is 17.4% (2000) in Japan, while it is projected to be around 40.2% in 2050. These figures of Japan are comparable with those of Italy but they are much higher than those of other countries (Table). In Japan, the speed of population aging is especially notable, and years of life expectancy are 79.2 for men and 86.0 for women in 2007. They are estimated to be around 81.9 for men and 89.3 for women in 2050.

However, could Japanese age people, especially to men enjoy the longest life expectancy in future? Generally, at the age of 60-63years old, salaried classes in Japan have to be retired, and large supports for health care from the company stop. Expectancy at age 65 is 19.61 year for men, and financial and social conditions in health care could not be completely established, especially above 75 years old.

Major health of aged men needed is effective prevention for cancer, hypertension, cardiovascular disease, stroke, diabetes, metabolic syndrome, and depression including rehabilitation and prosthesis for osteoarthritis and optional treatments of BPH and prostate cancer, although as to the urogenital cancer, National Program of Prevention of Cancer is going on in 2006.

Table: Proportion of people aged 65and over in a total population

Year	Japan	Italy	China	Korea	Malaysia	Philippines	Singapore
1950	4.9	8.3	4.5	3.0	5.1	3.6	2.3
1975	7.9	12.0	4.4	3.6	3.7	2.7	4.1
2000	17.7	18.2	6.8	6.7	4.1	3.6	7.2
2025	33.8	26.1	13.2	15.3	9.2	7.2	20.3
2050	40.2	34.9	22.6	24.7	15.9	14.2	25.6

Source: UN World Population Prospects: The 2000 Revision, The 2006 Revision (Japan)

Socio-Economic Implications of Men's Health in Singapore

Dr Kanwaljit Soin
President of Women's Initiative for Aging Sucessfully(WINGS), Singapore

Epidemiology of STIs in Men

Dr Martin T W Chio
National Skin Centre, Singapore

Monitoring of the epidemiology of STIs in Singapore is one of the responsibilities of the Department of STI Control (DSC) clinic. Notification from medical practitioners of common STIs such as gonorrhoea, non-gonococcal urethritis, syphilis and herpes, as part of Infectious Diseases Act, is an integral part of the surveillance of infection trends in the population. Although STIs are rarely fatal, it is associated with significant morbidity & disease burden.

For men in Singapore, after a marked decline in STI incidence rates from the 1970s to the 1990s, the incidence of STIs has been steadily increasing since 2000. The majority of men diagnosed with an STI fall in the 20-39 age group. In 2007, the STIs with the highest incidence are gonorrhoeal & non-gonococcal urethritis. With the increased use of nucleic-acid amplification tests (NAAT), more diagnoses of Chlamydia are being confirmed. The incidence of viral STIs, with genital warts & herpes being the most common, are on the rise too. From 2000 to 2007, public attendances at the DSC clinic have almost doubled.

The epidemiology of STIs in specific age-groups (e.g. young/old) & certain high-risk groups (e.g. MSM) will be presented. The focus will be on sexual partnerships & primary contacts, sexual practices & condom use, mode of acquisition, screening & testing and common diagnoses.

With a better understanding of the epidemiology, adjustments & improvements can be made to current sexual health education & targeted intervention programmes.

The Burden of HIV/AIDS

Dr Asok Kurup
Singapore General Hospital, Singapore

Twenty-five years into the epidemic, HIV/AIDS continues to exact high morbidity and mortality with almost 60 million men, women, and children infected with HIV while nearly 25 million have perished of AIDS. The statistics however dismal represent only the 'tip of the iceberg phenomenon' as there are countless undetected HIV cases. As with almost all countries, this is a male driven epidemic and in Singapore 93% of the 422 new cases in 2007 were men. Heterosexual transmission through paid sex remains the main mode of transmission in most countries in Asia although homosexual transmission appears to be on the rise in some areas underscoring the importance of prevention measures targeted at all risk groups. More than half of the new cases in Singapore in 2007 already had late stage HIV infection upon diagnosis. This argues for earlier screening in high-risk groups. An opt-out system of screening for HIV has recently been implemented in some local hospitals in an effort to detect cases early. The HIV/AIDS epidemic prevails because global efforts at controlling it have prioritized treatment over prevention strategies. There are now attempts at closing this gap. For example it is heartening to note recent evidence that male circumcision prevents HIV transmission. However much more needs to be done in the area of prevention of HIV globally. In its report presented to the United Nations in March 2008, the Independent Commission on AIDS in Asia calls for countries to craft high-impact interventions, such as HIV prevention programmes focused on key populations.

Challenges Facing STI & HIV Control Programmes in Singapore

Dr Roy Chan
National Skin Centre, Singapore

Approaches to STI/HIV control include treatment of symptomatic disease, coordinated screening, opportunistic screening, contact tracing, health promotion.

Chlamydia trachomatis infections are mostly asymptomatic, it occurs across population groups in sexually active individuals, screening is cost effective for at risk population using NAATs, self collected specimens are sensitive and specific, treatment is easy, effective, single dose antibiotic is available. Gonorrhoea tends to occur in clusters and in defined subgroups, localised outbreaks amenable to PH measures targeting 'core' groups, local clinical diagnostic, treatment and contact tracing measures are effective, continued emergence of resistant strains is a threat.

Genital herpes is very common, epidemiology is changing with primary genital HSV type 1 infections increasing, TSST and PCR detection has enhanced diagnostics, effective anti-viral treatment and suppression available, interaction with HIV a problem, barrier methods of limited use, vaccine optimism increasing.

HPV infections commonest STI, vast majority subclinical, therapy consumes significant resources of STI clinics, PAP smears/cytology services can prevent cervical ca, HPV vaccine – bivalent and quadrivalent high effective.

For HIV infection we need to provide affordable HAART, in addition to legislative measures that have included amendments to IDA criminalizing HIV transmission, we need to introduce anti HIV-discrimination laws, overcome homophobia, mobilise leadership and political commitment, and prioritise resources for diagnosis, treatment, prevention and research, introduce effective public education including condom promotion, introduce sexuality education programmes for youth, enhance surveillance, promote and sustain AIDS advocacy and activism.

Societal barriers to prevention and control include stigma & discrimination, complacency, denial, gender issues, changing pattern of sex work, problems facing ulnerable groups, and the Internet and the new sexual landscape.

Structured Training & Certification in Andrology & Men's Health

Prof Peter H C Lim
Society for Men's Health, Singapore

For the future of the field of Men's Health we must develop diploma and certificate courses in "Men's Health"which have didactic lectures, bedside & clinical teaching. If andrology is included in a more comprehensive "Andrology & Men's Health Diploma" operative sessions & hospital postings have to be incorporated.

The training programmes in these Postgraduate Courses should incorporate the following: scope & definition of "Men's Health Medicine":- Male aging and health related consequences, role of the medical profession, aging and role of the community, epidemiological characteristics of an aging world. In respect of orthopedics, changes in bone mass and bone density, changes in muscle strength and muscle mass & 'Sports Medicine', joint problems including arthritis of the peripheral joints and vertebral column are highlights. Regarding the Cardiovascular system, arterial occlusive disease, atherosclerosis of other vascular supply regions, & left ventricular function must be covered. For the Central Nervous System cognitive disorders, affective disorders: lack of drive, lack of interest, depression, anxieties, decrease of memory and/or concentration & dementia (alzheimer's disease, vascular dementia) are important. Endocrinology has a central role to play with emphasis on Andropause/menopause of the aging male. Thus one has to cover pituitary and hypothalamic hormones, gonadotrophic hormones (FSH, LH) and their releasing-hormones, prolactin, growth hormone (GH) and GH-releasing-hormone. Other hormones include epiphyseal hormone, melatonin & the sex hormones:eg androgens (testosterone, dehydroepiandrosteron = DHEA), estrogenes (estradiol, Estrone),gestagens (pregnenolone). Metabolic alterations of the aging male must be included in addition to the Genetics of Metabolic Diseases. Here obesity, hyperlipidaemia, gout, diabetes type II can all be linked to genetics. Modern day aspects of the Metabolic Syndrome in the aging male is of clear importance. In Nutrition, supplementation of vitamins (A, B, C, D, E, H), use of antioxidants, trace elements (iron, magnesium, selenium, zinc) should be in the curriculum plus weight management as in reduction of calories & changes of food components: like reduction of nutritional fat/ nutritional proteins. Skin conditions are important eg age related skin conditions and skin diseases, dry skin, sebostasis, skin sagging, keratosis, lentigo senilis, telangiectasis, alopecia & frequently occuring malignant tumours of the skin. In terms of lifestyle modifications harmful chemicals/ stimulants: eg nicotine, alcohol and caffeine, overeating, lack of physical exercise & abuse of pharmaceuticals take centre stage. Environmental medicine:Safety measures (prevention of stumbling-traps etc.) is vital. Common ocular problems in the aging male eg decrease of vision, cataract, glaucoma & dental problems in the aging male including Aesthetic Dentistry is important .Other diseases eg colorectal diseases are on the rise like diverticulosis & diverticular diseases. Last but not least are the life threatening cancers of the Prostate, Kidney, Bladder & Lung & their prevention, early detection & screening using DRE & PSA, Xrays etc

Last but not least as Men's Health embraces care from the cradle to the grave, young boys & teens have peculiar psychologic & physical health problems & as they get married, male infertility becomes an acutely increasing dilemma. Likewise male violence & crime, aberrant behaviour, homosexuality & Sex offences need to be addressed in our Programs.

Finally we should offer the Diploma in Men's Health for qualified Family Practitioners/General Practitioners with a interest in Men's Health and offer the Specialist in Urology, Obs-Gyn, Geriatrics with the postgraduate Diploma in Andrology & Men's Health.

Aging male symptom Score Different Scores for Different Cultures?

Prof Y Kumamoto
Society for Study of Aging Male, Japan

The Management of Anti-Aging Medicine -Eight Year's experience in Taiwan

Dr Peter Shih-Bin Pan
The Taiwan Academy of Anti-Aging Medicine, Taiwan

The so call "Anti-Aging Industry" is the fastest growing medical field in the past 10 years, the global market expected to reach 120 billion by 2010.

By the impact of competition and shortage of government insurance finance, many clinician shift their practice from classical medical business to life style medicine practice. The life style medicine includes: (1) Anti-Aging medicine, (2) Aesthetic medicine, (3) Sport medicine, (4) Nutritional medicine, (5) Stress- Mental medicine.

We setup 3 life style medicine clinics in the past 8 years.

The subjects of this topic will discuss: 1.The trend of anti-aging and aesthetic practice. 2. The profitability of different items. 3. To operate the customer service center. 4. The concepts of " call center ".

TCM and Men's Health

Dr Swee Yong Peng
Paragon Medical, Singapore

Good Agronomic Practices for Herbs (EYSGAPH) Certification Scheme

Dr Patrick Loh
Eu Yan Sang International, Singapore

To address the increasing consumers' concern for food safety, Eu Yan Sang International (EYSI) adopts the global approach of food safety assurance starting from farm to fork. Relevant food safety and traceability control systems (GAP, GMP, GDP, GHP, HACCP) have been adopted at various points of the food supply chain by key stakeholders (producers, traders, retailers) in order to meet both the regulatory and market requirements for food safety. Seeing that GAP programs for TCM herb cultivation are almost non-existent as compared GAP programs for fresh agri-produce production, EYSI develops an in-house GAP program - EYSGAP-HERBS Standard and Certification Scheme to ensure safety and traceability of its herbal supply which can value-add to its global customers.

EYSGAP-HERBS Certification Scheme is a certification for herb farm production system. It is a process certification which covers the cultivation, harvesting and post-harvesting handling of TCM plants or hereby known as "herbs" that is botanical in nature and include fungi. It covers all herbal production operation steps on-farm or off-farm, in such locations where the herbs or herbal raw materials is produced, handled, semi-processed (products derived from primary processing steps) and packed in a raw/ unprocessed or semi-processed form needed for further processing by EYSI into high valued herbal products.

The Standards adapts from international guidelines and standards from the World Health Organisation, CODEX Alimentarius and American Herbal Products Association for herb production and handling were used as references, and emphasizes on best practices / GAP in the following five specific components:

- Cultivation [Site Selection, Farm Structures/ Facilities, Sowing (Planting Materials), Plant Growth (Soil and Nutrient Management, Water, Irrigation and Drainage Management), Crop Protection and Maintenance (Integrated Pest and Weed Management, Agrochemicals, Other Chemicals)]
- Harvesting (Farm Harvest, Wild Collection)
- Post-harvest Handling (Good Manufacturing Practice, Primary Processing, Packaging and Labeling, Storage, Transport)
- Traceability and Product Recall
- Internal Quality Management Control (Organisation's Food Safety Policy and Regulations, Competency, Communication and Training of Personnel, Documents and Records, Internal Audit and Review of Practices)

Following the successful implementation of EYSGAP-HERBS system in its Lingzhi farm in China that was verified by third party auditor, Agrifood Technologies - a subsidiary of Agrifood and Veterinary Authority (AVA) of Singapore, EYSI has just made an official launch of the Scheme on 31 March 08 with a brand "EYSGAP-Herbs" label for easy identification by consumers for herbal products derived from EYSGAP-HERBS certified safe sources.

Herbals in the Treatment of Male Sexual Dysfunction & Male Aging

Prof Arif Adimoelja
Hang Tuah University - Naval Teaching Hospital Dr. Ramelan, Indonesia

INTRODUCTION

Current progress: Knowledge, science and technology have elucidated researches and usefulness of herbal medicine. Unfortunately in modern medicine (main-stream medicine, as known in "anti-aging medicine") herbals are still considered as alternative treatment for health, aging and other morbidities, including cancers. Herbal medicines are familiar since history of mankind to postpone aging processes and enhance physical strength (in this case "andropause"), prevent and cure illness or other serious-fatal diseases. Herbal approach in medicine is considered to maintain constant efforts of body's life force in the direction of self cleansing, self repairing and produce positive balance of body metabolism and health care with minimal side effects or reverse reaction. Any kind of "disease" might down-grate health processes; such as andropause which in anti-aging medicine is also considered as a "disease" (?). Aging is a process of life that manifest in body's miss-efforts to self cure, in conclusion "andropause" can be cured or even reverse.

Herbal medicine as well as water treatment, aroma therapy are considered as similar alternative treatments that are being used for the beneficial effects of human body efforts to urge and manage body and mind efforts to self-preparing processes for healing. Scientifically herbal medicine as it is should not be considered as a second means (alternative) for treatment. Modern herbal medicine as phyto-pharmaceuticals should be considered as a choice for treatment. Phyto-pharmaceuticals such as chemo-pharmaceuticals should have passed scientific researches and clinical trials or at least having been proven for evident base trials. Actually 25 % of medical prescriptions containing herbal ingredients have been daily unconsciously prescribed by physicians and 75 % of the world populations have used herbal medicine in all over the world (WHO, 1987)

TRADITIONAL-, MODERN HERBAL AND PHYTO-PHARMACEUTICAL

Modern herbal medicine is known as Phyto-pharmacheuticals, produce by scientific extraction of the entire herbal components. Composed of well known phyto-chemical structures, other known components, minerals, metals, trace elements, vitamins and their concentrations. Phyto-pharmaceuticals discriminate from traditional and modern herbals by their exact composition, concentration and hygiene. Chemo-pharmaceuticals differ from Phyto-pharmacheuticals by her definite synthetic-chemical component, which can define the exact dose to combat the cause and etiology of known diseases. Unfortunately failures in practicing the application of modern chemo-pharmaceuticals may result in unpredicted side-effects and adverse reaction. Many benefits of herbal medicines as phyto-pharmaceuticals so far were not supported by scientific research and clinical trials. Herbal medicine being claimed as phyto-pharmaceuticals was consumed on basis of their empirical usefulness for disease treatment. Ultimately phyto-pharmaceuticals in modern medicine urge not to be considered as alternative choice for treatment.

PHYTOCHEMICALS AND CHEMICALS, THE DIFFERENCES: Phyto-chemicals provide plants the optimal conditions to grow, protect and adapt against harmful factors or attract insects for symbiotic needs. Phyto-chemicals react holistically in the same way as biochemical compounds; hormones, vitamins and enzymes that are metabolized in human bodies/animals to sustain and maintain healthy living and protection.

Purifying phytochemicals from the original plant-extract to a single agent would cause the phytochemical to loose the holistic natural components of phyto-pharmacodynamic properties. Principally a single purified phyto-compound becomes similar to chemical (synthetic) agent that subscribes its action to a single goal factor.

ANDROPAUSE AND SEXUAL DYSFUNCTION

Andropause is the popular phrase commonly used to mimic menopause in women. In fact, there is never a "pause" in men (MEN–NO–PAUSE) as that in women ! But it is true that physical and mental strength apparently decline. Also psychosomatic syndromes similar to that in menopausal women may happen, hot flushes, osteoporosis, obesity, hypertension, cardio-vascular and metabolic diseases will increase with progressing of age. To begin with the age of forties.

Both in menopausal women and andropausal men the decline production of sex hormones may have influenced the process of aging. In menopausal women drastic decline production of estrogen can be clear-cut observed. Hormonal Replacement Therapy (HRT) with estrogen (single hormone) was ever been popular. In aging men HRT with androgens have also been familiar, although no clear-cut decline production of testosterone (total) can be observed. Andropause complains, currently known as Testosterone Deficiency Syndrome (TDS) seem to be more trustworthy and clinically justifiable (in PADAM, ADAM, SLOH or LOH)*. Unfortunately during years of HRT, using testosterone supplementation, controversial side effects seem to appear (malignancies of breast and prostate cancers). Therefore extreme precaution has to be taken when HRT should be applied. Current researches on phyto-pharmaceuticals and their combinations of diversities herbal products to treat sexual dysfunction and aging have booked attractive good results without severe side effects or adverse reaction.

FACTS ON PHYTO-PHARMACEUTICALS

To mention some of these products are Ratax®, Virilex®, Blue Moon®, Tribestan® ,VirilarTM and more... The current new trial we have the chance to share for a small open line trial is VirilarTM. Which show a significant ($p < 012$) good result after a one month trial of 12 aging males (age 53 -62 years old) complaining erectile difficulties and reduce sexual desires and stamina (see research trial attachment). A further double blind evident base trial should be performed to reconfirm for this temporary outcome.

As has been mentioned above any herbal extract would have its own pharmacologic -dynamic action and ethno-pharmaceutical condition for its optimal usefulness. Phyto-pharmaceuticals consisting of more than one phyto-chemical extract might exert imbalance in their pharmacologic-dynamic action resulting to favorable or adverse reaction. A further research to these conditions would therefore be considered. Other constrain factors as has been published by I.D. Sharlip (Newark Star Ledger, 30 Jan. 2002) mentioned that “Herbal Sex Pills Thrive on Fantasy More Than FACT ! 9 out of 10 Phyto-pharmacheuticals (sex tonics) did not contain phyto-extracts concentrations as mentioned in their brochures. Regretfully some Phyto-pharmacheuticals that are marketed over the counter as “health supplements” too did not fulfill the legal requirements. Some of these phyto-pharmaceuticals were therefore force to be abandoned.

Current medical treatments for aging men are most focused to sexual dysfunction. In many studies published mentioned that erectile dysfunction is the Gate-Way for more serious morbidities (L.G. Gooren, 2006, F. Saad, 2007). The quality and stiffness of penile erection probably can be a sign of diseases in aging men (metabolic syndrome, hypertension, high cholesterol blood serum, cardio-vascular diseases. Some of these well known phyto-remedies as Serenoa repens (Saw palmetto), Corinanthe yohimbe (Yohimbine), Ptychopetalum olacoides (Muira puama), American-, Chinese-, Korean-ginseng (varieties of Panax ginseng), Siberian ginseng (Eleutherococcus senticous), Cordicep sinensis sacc. (Cordiceps), Tribulus terrestris L (Protodioscin), Momordicocin and more should be of of much benefit to prevent the preventable and postpone the in-evitable process of aging men. A scientific approach to herbal medicine would be of paramount important for the next future.

*) PADAM = Partial Androgen Deficiency in Aging Male
ADAM = Androgen Deficiency in Aging Male
SLOH = Slow Onset Hypogonadism
LOH = Late Onset Hypogonadism

Asia Pacific Society of Sexual Medicine (APSSM) Symposium on ED – A Review of Treatment Options

Prof Chiang Han Sun
Asia Pacific Society of Sexual Medicine, Taiwan

Prof Nam Cheol Park
Asia Pacific Society of Sexual Medicine, Korea

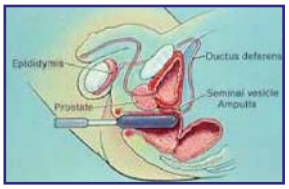
Prof Abdulmaged M. Traish
Boston University School of Medicine, USA

Video Demostrations – Electroejaculation & Electrovibration

Prof Peter Lim Huat Chye, MD
Consultant Urologist, Urology Centre, Gleneagles Hospital, S'pore
Sr Visiting Consultant & Advisor, Dept of Urology, CGH, Singapore
Adjunct Professor, Edith Cowan University, Australia

Anejaculation and ejaculatory dysfunction are the terms used to describe the inability of a man to have an ejaculation. This condition typically results from neurologic diseases, traumatic injury, or as a complication of surgery. The nerves that are responsible for carrying the signal for ejaculation exit the spinal cord and course along the aorta at the posterior part of the abdomen. These nerves are most commonly injured after spinal trauma resulting in paraplegia or quadriplegia, major bowel or vascular surgery, or surgery for testicular cancer. Other conditions that can result in ejaculatory failure include diabetes, multiple sclerosis, syringomyelia, psychological disorders and peripheral neuropathies. In the past, men with ejaculatory dysfunction were considered infertile because they couldn't ejaculate and impregnate their wives even though they did produce sperm within their testicles.





Two techniques were developed to help induce an ejaculation in a man who is otherwise anejaculatory. Vibratory stimulation (VS) employs a custom designed mechanical vibrator (store bought vibrators don't work for many patients) that is applied to the underside of the glans penis and set to vibrate at a designated frequency and wave amplitude. This vibration travels along the sensory nerves to the spinal cord and may induce a reflex ejaculation. This technique only works in patients with an intact ejaculatory reflex arc and the results are dependent on the level of spinal cord injury. This is an office procedure that requires no anesthesia or sedation to perform. The second procedure is called Electroejaculation (EEJ). Electroejaculation is performed with a device known as an electroejaculator . Only two electroejaculator machines exist currently: The Seager Machine & the Brindley Machine. A specially designed electric probe is inserted into the rectum next to the prostate. A current generated by the machine is applied to stimulate the nerves (or periprostatic & pelvic muscles depending on the machine) and produce contraction of the pelvic muscles resulting in an ejaculation. The semen specimen is collected and processed in the andrology laboratory and if the specimen is of very good quality then it can be used for intrauterine insemination (IUI). If there are few sperm or the sperm have low motility then the specimen can be used with In Vitro Fertilization to establish a pregnancy. Electroejaculation must be performed under general anesthesia in all patients who have abdominal and perirectal sensation. Anesthesia is not required for spinal cord injured men who have high level injuries and are without sensation. Anyone who has a history of autonomic dysreflexia must have blood pressure and heart rate monitored as electroejaculation may cause an significant increase in blood pressure.

A complete urologic evaluation is required prior to electroejaculation in order to detect and treat any urinary tract infections. Men with spinal cord injuries often have a problem with poor sperm production as well as ejaculation after the injury. A diagnostic trial of electroejaculation is attempted to obtain and examine the quality of the semen specimen. Good quality samples are frozen for future use as a backup. A fresh specimen is obtained at the time of the women's ovulation. Patients are prescribed sodium bicarbonate tablets prior to VS and EEJ to alkalinize the urine and make it more hospitable to sperm since there is often a retrograde component to the electroejaculation and the sperm may need to be retrieved from the bladder via a catheter. Electroejaculation and vibratory stimulation have enabled many men who suffer from ejaculatory failure to conceive children of their own.

Electroejaculation must be performed under satisfactory anesthesia in men with spinal cord injuries with sensation in or below the abdomen. A complete urologic examination must be performed prior to the procedure to detect and treat any urinary tract infections.

Often during this procedure retrograde ejaculation occurs, which is a backwards ejaculation into the bladder, and sperm must be collected from the urine. Men with SCI with a history of autonomic dysreflexia, or the sudden onset of high blood pressure, must be carefully monitored by a physician, as electroejaculation can cause a significant increase in blood pressure and heart rate.

Summary:

• In electroejaculation, an electric probe, or electroejaculator, is inserted into the rectum near the prostate to stimulate the nerves (or periprostatic muscles in the case of the Brindley Machine) and contract the pelvis muscles, causing ejaculation.

• Ejaculate is collected from the urethra, and processed in the laboratory to determine sperm quality.

• If enough high-quality sperm are recovered from the semen, they can be washed in our laboratory and used in Intrauterine Insemination (IUI), a process where, using a small tube or catheter, prepared sperm is injected directly into the uterus to achieve egg fertilization.

• If a lower number or lower quality of sperm are recovered in the semen, it can still be used with In Vitro Fertilization (IVF). Using Intracytoplasmic Sperm Injection (ICSI), a single sperm, processed in our laboratory, is injected directly into an oocyte (egg) to fertilize it. Once fertilized, the developing embryo is implanted into the uterus.

Pharmacotherapy for Erectile Dysfunction

Prof Doddy M. Soebadi, MD, PhD
Department of Urology, Soetomo Hospital, Airlangga University School of Medicine
Surabaya - Indonesia

Modern treatment of Erectile Dysfunction (ED) has been revolutionized the treatment of male sexual dysfunction, by the availability of the three PDE5 inhibitors (sildenafil, vardenafil, and tadalafil) for oral use. These drugs, when compared with older treatments, are the first easy-to-use treatment that works well for most common ED problems.

Whatever the cause of the ED, it is almost always associated with performance anxiety. Thus part of the stimulus towards full penis erection is the sensation of getting an erection and if there is no penile response to sexual stimulation this lack of response is worrying and this worry inhibits erections and makes the problem worse. The first-line treatment for most men with ED is a PDE5 inhibitor such as sildenafil, tadalafil, or vardenafil and in many cases and particularly in men over 50, a major part of the benefit of these medicines is breaking the cycle of performance anxiety by increasing penile response to sexual stimulation.

The response rates to PDE5 inhibitor drugs can be predicted from the pretreatment IIEF score. If the patient is having partial or unsustained erections, then the response is likely to be good, with more than 90%of men achieving an erection sufficient for penetration and less than 2% of men stopping treatment because of side-effects. However, if there has been a prolonged time without sexual activity and if the man has no erection, then irreversible changes such as corporal fibrosis are more likely and the results of PDE5 inhibitor treatment are worse. Nevertheless, because side-effects are few, it is worth trying PDE5 inhibitor treatment in all cases unless contraindicated by angina medication.

Treatment options for patients not responding to oral drugs (or contraindicated) include intracavernous injections, intraurethral alprostadil, vacuum constriction devices and implantation of penile prosthesis.

It must be emphasized that the physician should warn the patient that sexual intercourse is considered to be a vigorous physical activity, which increases heart rate as well as cardiac work. Physicians should assess the cardiac fitness of patients prior to treating ED. Any successful pharmacological treatment for erectile failure demands a degree of integrity of the penile mechanisms of erection.

Penile (Girth) Augmentation by shaft injection of dermal fillers

Prof Peter H C Lim, MD
Consultant Urologist, Gleneagles Hospital

The real & correct indications for this procedure are for the select few who have bona fide medical reasons to justify its performance by the surgeon. It behoves the practitioner to screen out most of the psychogenic patients who unfortunately form the majority who mainly suffer from have a body image disorder that needs psychological counseling rather than surgery. Many methods have been tried viz. subcutaneous dermal grafts, cell seeded implantable scaffold by Maxgen BioTech Co, Subcutaneous injection of fat with each method having certain advantages & disadvantages, the last named with rapid resorption & uneven contours often resulting. Recently the use of Macrolane SubQ, a biologically acceptable filler (hyaluronic acid 20mg/ml)made by Q-Med Ab appears excellent for girth & glandular (for glans penis, a different version should be used- vida infra) augmentation due to its simplicity & safety.

This video demonstration will show the preparation & technique of injecting this. The injection volume is 16-20 ml (of Restylane SubQ), using a #19 cannula. The injection site is at the mid shaft, outside the corporeal bodies. The injection layers for glans augmentation is just beneath the mucosal layer of the glans. And the injection layer for penile shaft augmentation is just beneath the layer of the Dartos muscle. Using a fan technique often only one injection site is needed. The material must be spread around by a roller. Majority of patients show signs of improved diameter and smoothness. Remember that the technique gives little benefit or will give problems if the patient is not circumsized. Main difficulty is deciding how much to inject. May require simple re-modelling or re-moulding follow up visits to reach the optimal end points desired by the patient. Infection can occur post-injection, hence start a routine 5 day course of Augmentin post-procedure is mandatory. Do not use Macrolane SubQ for the glans; here we should use Perlane by Q-Med or better 2ml of Juvederm Ultra (24mg/ml of cross linked hyaluronic acid) by Allergan

So far this technique looks very promising, however we need longer follow up & more reports of its durability & long term functional results.

Prevalence of ED and Sexual Disorders in Singapore

Prof P Ganesan Adaikan
Head, Section of Reproductive Pharmacology / Sexual Medicine, Department of Obstetrics & Gynaecology, National University Hospital, Yong Loo Lin School of Medicine, National University of Singapore

An epidemiological study was carried out in a cohort of 923 male patients presenting with sexual dysfunction (SD) at the Andrology clinic, NUH to evaluate the community prevalence of erectile dysfunction (ED) among the different races in Singapore and how it varied with the marital status, medical illnesses and lifestyle derangements. The incidence rate for SD was 63% among Chinese, 21.3% for Indians, 7.4% for Malays and 8.3% for the other races (including foreigners). When compared with the population distribution of races, Indians attending the SD clinic were 3-fold more and the incidence was least among Malays. There were more patients in the age range of 31-40 (35.8%) and 41-50 (27%) compared to other age groups. The average age for presenting with SD complaints was 44 years.

Considering the marital status, 85.5% were married, 11.6% unmarried and divorcees and widowers constituted 2.5% and 0.4% respectively. Majority of men requesting for SD treatment had established relationship / partners. Studying the racial pattern in this context, more married (88.95%) and less single (4.8%) men attended the clinic among Malays than Chinese or Indians. History of masturbation was given by majority of men attending the SD clinic (89.2) compared to 10.8% without this incidence. The figures were similar across the racial groups studied. There was also history of multiple partnerships with no socio-scientific rationale. Medical illnesses resulting in organic causes for ED were more common among Malays (48%) compared to Chinese (38%) or Indians (40.4%). Among Malays, there were also more smokers and diabetics (36.2% and 36.4%). The figures for these two parameters were 34.2% and 25.4% for Indians and 26.0% and 19.2% for Chinese. Incidence of hypertension was also highest among Malays (30.8%) when compared to Chinese (22.1%) and Indians (16%). As for lipids, 67.9% and 39% of a mixed patient pool for total cholesterol (268) and TG (251) respectively had higher than normal levels of the two lipids; these biochemical parameters are well-known risk factors for ED.

Among the 424 Chinese SD patients cohort, 13.9% presented with non-consummation of their marriages. Among the 64 Malay cases studied, 8.1% were unconsummated. Among the 146 Indian SD patients' cohort, the incidence of this complaint was 19.1%. This shows that non-consummation of marriages was one of the major causes of subfertility seen at the OBGYN Andrology setting. Interestingly, a third of all the ED patients monitored for total testosterone had lower normal (<3.2 ng/ml) or less than normal level of this important male hormone. When this group was compared to groups with mid (3.3 – 6.2 ng/ml) and higher normal levels (>6.3 ng/ml), both aging and low testosterone levels are negatively correlated to desire for frequency of coitus. It is seen from our epidemiological study on the patient pool that life style factors, hormonal, environmental and other social issues do play a role in contributing to sexual dysfunction including non-consummation predisposing to marital disharmony.

Why Men Buy Sex

Peter H C Lim, MD
President, Society for Men's Health, Singapore
Adjunct Professor, Edith Cowan University, Australia
Senior Consultant Urologist, Urology & Andrology Centre, Gleneagles Hospital, S'pore

A survey on Why Older Men Visit Sex Workers was done during a n Exhibition on Sexual Health held on 25-26th Nov 2006 in Singapore. Evaluable responses were obtained from 108 Men The aims and objectives were to find out: (1) Reasons that movtivated mento seek the services of sex workers within S'pore & the surrounding countries (2) What category of aging males seek sex workers eg. Age group, Marital Status, Religion, Occupation & Economic Stature (3) Most frequented places (4) Type of Sexual Habits & the use of condoms for protection (5) Amount money Paid & the use of Sex Drugs/Aids during the encounter (6) Reasons & Psychology behind the Transection eg what motivates them visiting Sex Workers, & (7) Connection between older males seeking commercial sex & Social Gerontology

Results:

The average age was 50 years. Managers, teachers, Engineers, accounts etc were not spared but the majority were salesmen (17%)& managers(22%). Heterosexuals comprised 76% whilst there were 6% homosexuals & 4% bisexuals. Seventy-seven percent were maaried men, 12% single, & divorces consisted only 5%. Thity-seven had no religion, 27% were Christians while 19% were Buddhists. Thailand was the most frequented venue (18% with an added 8% in Hatyai), Batam (15%) & Bintan (7%) in Indonesia followed in popularity and locally in S'pore Geylang (14%) & Karaoke Bars (14%) accounted for most of the rest.The men either never paid anything (29%) or paid Sing$200 (25%) with the rest paying anything in the range up to Sing$1000. Sixty percent only used condoms regularly. One third used PDE5 Inhibitors during the Sex Act , 50% used supplements or Herbs to ehance the act but only one fifth did not use any such assistance.

From the Study we were able to provide Recommendations to the Government as follows: (1) Educate Aging Men & women in Sexual matters (2) Provide opportunities for wholesome activities for aging men & women (3) Make available Counseling Services (cf. dating services in young, need re-dating & re-discovering love in seniors too) (4) Sex is a continuum despite aging. Men found a new beginning with Viagra & Women need to catch up (5) Influx of "foreign maids & others in entertainment industry" a problem (6) Government efforts eg safe sex campaigns (7) Men's Health Programs to instill sense of responsibility in men in their twilight years to their spouses & vice versa

Conclusion:

This survey allows Doctors, Health Care & Social Workers better understand the the magnitude of the problem & dynamics behind the quest for sexual workers in this late part of his life despite prohibitory societal values & provides suggestions to relevant agencies in the country to overcome this problem.

Sex and the Teens-Adolescent Sexual Counselling

Dr Brian Yeo
Senior Consultant Psychiatrist, Mt Elizabeth Medical Centre
Adjunct Associate Professor, Department of Psychological Medicine,
Yong Loo Lin School of Medicine, National University of Singapore

Commonly seen sexual issues in adolescents include:
1-Pornography, especially Internet Pornography
2-Worries over Sexual Maturity
3-Excessive Masturbation
4-First Relationships
5-Homosexual Thoughts
6-Special Groups including Mental and Physical Handicap

The talk would focus on dealing with sexual urges with regards to pornography and masturbation.

Common maturity issues, especially in teenage girls and its effect on their self confidence and sense of fitting-in, would be discussed.

Sexual attractions, including having gay thoughts and its management would be highlighted, including first relationship problems of rejection, anger and loss of face.

Finally, teens with special needs also have sexual needs that would need to be more deftly handled.

The role for parents to take time out from their busy schedules to help their fast developing teens in an engaging rather than an authoritarian or dismissive approach would be the topic in the conclusion.