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### The Cover Shot
This picture was taken in a sunny morning from the top of the Aiguille du Midi at Chamonix in Southern France capturing the spectacular view over the Dent du Géant along the French Alps, with a mountaineer at the lower right corner of the picture standing on another summit and admiring the majestic mountain ranges.

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Human sexuality is a psychosomatic process involving complex interplay between the mind and the body. For centuries, it was governed under the realm of morality and religion. It was not until the 19th century when medical views on human sexual behaviour became influential. Despite publication of landmark works in this field in the century afterwards, the term “Sexual Medicine” has not appeared on literatures till the early 1970s, while journals on this subject were launched only a few years later. Sexual Medicine is a relatively young specialty in medicine which has not gained a legitimate position in some countries yet. Researches in sexual medicine began to blossom only in the last few decades, beset by rapid changes in socio-cultural environment shaping public attitudes to sexual health. The influence of medical advances and unique impact of socio-political movements on the medical descriptions and definitions of sexual disorders can be traced from the diagnostic nosology in successive editions of the American Diagnostic and Statistical Manual in Mental Disorders (DSM).

Traditional medical training focused on dualistic biological-psycho-sociological illness models which posed obvious limitations in explaining mental and behavioural disorders like sexual disorders. The illness models have to be interpreted in the context of a socio-cultural environment which exerts strong influences on our concepts of how sexual problems are defined, caused, experienced and handled. This is particularly relevant in diagnosing sexual disorders in which a demarcation between the normal and abnormal is at least partially culturally determined. For example, how inadequate or excessive sexual desire and how premature of ejaculation were defined was dissimilar across cultures. The diagnostic category of paraphilia is also more apparently constructed on moral judgement regarding what constitutes normal sexual behaviour. It was well-known Chinese folk belief that it took ten drops of blood to produce one drop of semen, and consequently sex drains the body of vitality. Historically masturbation was also thought to cause blindness and insanity in Western cultures. The diagnosis of sexual disorders in the DSM requires the presence of clinically significant distress which is implicitly affected by social expectations. The distress of erectile dysfunction may result from social expectations on phallus size, sexual performance, as well as procreation responsibility especially in Asian countries. Distress in the sexual minority may come from inner psychological conflicts but more importantly from social disapproval.

Cultural norms decide how people express their sexuality. Same-sex attraction was previously judged to be pathological in need of treatment. Reproduction has long been considered the sole function of sex, and medical practitioners were penalised for giving advice on contraception early in the last century. Culture also determined how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems. Women and the elderly seldom consult for sexual complaints as the society denied how people can seek help for sexual problems.

Sexual disorders are highly prevalent and can be classified into sexual dysfunctions, gender dysphoria and paraphilias. With an increasingly
sexually permissive social atmosphere and globalisation of sexual attitudes, we are now seeing wider variations in the expression of sexuality in our clinical practice. Nowadays, we cannot always assume that the partners of our patients are of their opposite sex. Adoption of a biopsychosocial approach with appreciation of the cultural dimensions of sexual disorders will be useful in developing a new set of culturally sensitive clinical skills in meeting the special needs of this clinical population, especially in the sexual minority who are increasingly visible and vocal in our society.

This issue in Sexual Medicine is a timely one following the recent publication of the 5th edition of the DSM on the latest diagnostic classification of sexual disorders. I was deeply indebted to the authors for their sharing of expertise in the care of patients with wide repertoire of sexual problems in the public and private sectors. Dr Desmond Nguyen, founder of the Psychosexual Clinic in Caritas Medical Centre, will share with us pearls in the management of male sexual dysfunctions, while I will discuss on female sexual dysfunctions. Dr Gregory Mak leads a special interest in gender dysphoria and will guide us on looking after adult patients with this problem. Dr KW Hong will share with us his expertise gained from his decades of experience in taking care of children exhibiting gender nonconforming behaviour which is a grave concern among parents. Professor ML Ng, awardee of the Gold Medal Award of the World Association for Sexual Health and our pioneer in Sexual Medicine in Hong Kong, will review on the most challenging topic of paraphilia or disorders of sexual preferences. Finally our Vice-President Dr YK Ng will share with us tips to unwind through his exhilarating travel experience in the exotic country of Sri Lanka. I sincerely hope that readers will find the articles interesting and useful in their daily clinical practice.

References
THE FEDERATION OF MEDICAL SOCIETIES OF HONG KONG

FMSHK 50th Anniversary Gala Dinner

Date: 15 Mar, 2015 (Sun)   Time: 6:30pm – 11:00pm
Venue: InterContinental Ballroom, 18 Salisbury Road, Kowloon, Hong Kong

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Male Sexual Dysfunctions

Dr Desmond NGUYEN
Consultant Psychiatrist, Department of Psychiatry, Kowloon Hospital

Introduction

Sexual dysfunctions in males comprise mainly erectile dysfunction and premature ejaculation in daily clinical settings. In the 10th version of the International Classification of Diseases (ICD 10), the general criterion of sexual dysfunction is being unable to participate in a sexual relationship in a way he or she should wish up to a period of 6 months and the situation is not entirely attributable mental, behavioural or physical disorder.

These conditions are so prevalent that in the daily practice in psychiatry, urology medicine and family medicine could easily come across. Patients may directly present the difficulty or impairment in sexual functioning during consultations or the dysfunctions could be discovered collaterally when a history is further explored from patients who may present with non-sexually related problems initially. No matter from which channels that our patients would seek help for such distressing concern, the management should share the same basic principles to safeguard the interests of our patients.

Erectile dysfunction

Definition and epidemiology

In ICD 10, in addition to the general criterion of diagnosing sexual dysfunctions, erectile dysfunction could be diagnosed when either of the following conditions is present:

a. Full erection occurs but disappears or declines when intercourse is attempted (before ejaculation if it occurs)

b. Erection occurs but only when intercourse is not considered

c. Partial erection occurs but insufficient for intercourse

d. No penile tumescence at all

The condition is affecting 10%-30% of the male population2-3. The prevalence is higher in the older age group who are more likely to be suffering from the predisposing pathology of erectile problems, resulting from a compromise of the vasculature of the erectile mechanism. Up to 52% of the male population between the age group of 40-70 may be suffering from the condition4.

Causes

Adequate penile erection relies mainly on the erectile pressure generated by adequate blood engorgement of the corpus cavernosum. This complicated process is the resultant of increased arterial flow into and decreased venous outflow from the penile tissue orchestrated by a complex interaction of neurophysiological and psychological factors. Understandably, any condition compromising the functioning of such components may be the cause of erectile dysfunction. The well-known ones are hypercholesterolaemia, hypertension, obesity, diabetes mellitus and smoking which are also the culprits of vascular damage in the body, explaining why erectile problem and cardiovascular disease share similar aetiology and may coexist. Other causes include endocrinical problems, like hypogonadism, and traumatic neurological sequel of spinal cord or pelvic injury.

Furthermore, psychological factors always have an important role to play no matter there is a substantial organic component or not. Apart from formal psychiatric diagnosis like depression, a poor relation with the sexual partner and traumatic sexual experiences are also potential causes to be excluded.

Last but not least, a thorough drug history to look for drugs such as thiazides and those with an anticholinergic property is indispensable. These drugs could cause or further compromise an already impaired erectile function.

Treatment

With reference to the aetiology discussed in previous paragraphs, it is reasonable to conceive that the first step in managing erectile problem will comprise the workup for reversible organic factors and the control of risk factors. They should include the look out for weight problem, underlying diabetes mellitus and high lipid/cholesterol, hypertension and smoking/ alcohol habits. Underlying endocrine problems such as hypogonadism and thyroid dysfunctions are possible causes but they are less likely in middle age males.

Psychosocial problems should also be addressed before resorting to pharmacotherapy or other special treatments to relieve the erectile problem. One reasonable focus is to tackle the presence of marital/ relation problems with the spouse. This will be especially significant when the relationship challenge holds a temporal relation with the onset of the dysfunction. No matter a psychological
component is significant or not in accounting for the symptomatology, strategies could be considered to address any underlying performance anxiety. Sensate focus by Masters and Johnson 5 is one of the treatment modalities used to tackle the underlying stress through systematic desensitisation. It advocates the gradual introduction of intimacy, ranging from non-genital mutual touching, genital caressing to eventual coitus, taking place over weeks of pre-coached sessions. The aim is to assist the couple to understand the underlying problems and to reintroduce intimacy through a non-demanding, failure proof and a non-coitus/ non-genital response focused environment.

Although not all clients are motivated for a sole psycho-behavioural approach as above, the principles of this relaxation technique could be applied even for clients taking medication/ receiving special treatments such as vacuum erection devices. They may consider adopting the practice in the weeks before the medication/ special treatment or during foreplay before intercourse.

Regarding the use of phosphodiesterase type 5 inhibitors, it is one of the most accepted treatment modalities by clients who prefer the easy way out of “a tablet will solve all problems”. This is not surprising as a response rate of 60-70% is reported by most patients6. The medication acts by inhibiting the break down of cyclic guanyl monophosphate, a component which is indispensable in mediating erection through relaxation of vascular smooth muscles to increase penile blood flow. Although there are a several alternatives in this group of inhibitors, they share similar contraindications and side effect profiles. Before taking the medication, patients should be screened out for

1. significant renal and hepatic impairment.
2. retinitis pigmentosa
3. unsatisfactory blood pressure control
4. concomitant consumption of medication containing nitrates (commonly used in coronary insufficiency) or alpha adrenergic blocker
5. deformed penis
6. any medical condition which renders the patient physically unfit for sexual activity

Patients should also be warned of the following side effects after taking the medication:

1. flushing
2. nasal congestion
3. headache
4. dizziness
5. abnormal vision (blurred vision or blue colour tinge)

The greatest difference between various alternatives lies in the effect profile, time of onset and duration of action. Vardenafil and sildenafil both have similar onset time within one hour and effect duration of around 4 hours7,8. However, vardenafil appeared to have the additional effect in alleviating premature ejaculation and lesser side effects on vision.

Tadalafil, with an onset time of 2 hours and effective duration of more than 20 hours9, is the drug of choice if a daily intake of phosphodiesterase inhibitor is preferred instead of a “drug on demand”. This regular intake aims at improving self-confidence and spontaneity. Hopefully, the client will experience less pressure than when they are expected to have improved erection right after a specific goal directed intake of the agent.

With the same intention to reduce performance anxiety after taking any medication for erectile dysfunction, upon prescription of such agents, patients should be well advised of the fact that the drugs may not exert its full effect in the first few times of its use due to the need of dosage titration as well as psychological reasons resulting from unrealistic expectations. Some patients may also prefer not sounding out the use of the drugs to avoid undue pressure from their partner in the initial phase of the treatment.

Other treatment modalities include vacuum erection devices, injection of prostaglandin and surgical implant. While the latter two are usually introduced to patients via specialists, patients may approach suppliers of vacuum erection devices out of their own initiative. In spite of the cumbersome manoeuvre of the devices, its use is fairly safe as the vacuum induced erection is easily reversible before the application of the constriction rubber band at the base of the penile shaft. Nevertheless, patients should be seriously advised of the grave consequence of its delayed removal especially under influence of alcohol or falling asleep shortly after coitus. Its application of more than half an hour is not recommended to avoid extreme discomfort, difficulty in removal and ischaemic damage.

Premature ejaculation

Definition and epidemiology

The definition of premature ejaculation varies. The most important definition components relate to the functional aspect of sexual satisfaction, lack of ejaculatory control and in some systems a qualifying time limit. The definition by Masters and Johnson 5 emphasises the failure to delay the ejaculation process to an extent to satisfy the partner in 50% of the occasions. For ICD10, apart from satisfying the general criterion of sexual dysfunctions as mentioned in the introduction, the condition is characterised by the inability to delay ejaculation sufficiently for both parties to enjoy sexual satisfaction as ejaculation takes place within 15 seconds after beginning of intercourse or in the absence of adequate penile erection for intercourse. The International Society of Sexual Medicine 10 sets the time limit of failing to delay ejaculation for more than one minute after the commencement of vaginal containment. The prevalence of this condition ranges from 5-30%11.

Causes

The pathology mainly lies in the lack of control on ejaculation before the stage of the ejaculatory inevitability, resulting in the shortening of intravaginal ejaculatory latency time. In contrast to erectile dysfunction, the pathophysiology of premature ejaculation has less to do with the peripheral organ but the central nervous system. In lifelong premature ejaculation where the early ejaculation is longstanding almost since the beginning of sexual experience, it is hypothesised that there is an
overactivity of the 5-HT 1A receptors and an abnormally low activity of the 5-HT 2C receptors of the serotonin transmission system. In acquired premature ejaculation where the disorder starts after a previous period of normal control of ejaculation, unsatisfactory experience or stresses arising from previous sexual encounters are thought to be the prime causes. However, a predisposing deficit in the serotonin transmission system described in the aetiology of lifelong premature ejaculation could not be ruled out in this acquired subtype.

**Treatment**

Similar to the treatment of any other sexual dysfunctions, the therapeutic approach addresses both the psychological and organic aspects. A thorough interactive assessment will not only allow the clinician to understand the gravity and chronologics of the problem but also allows the patient to receive proper information about the pathology and causes of the illness which is self-limiting on some occasions. If medications are to be considered, the following agents are available according to prevailing evidence.

**Selective serotonin reuptake inhibitors**

Commonly used agents include paroxetine, fluoxetine, citalopram and sertraline. The dosage used is mostly comparable to the treatment of depression. Their mechanism is central in nature and is believed to be effected through the 5-HT system. Paroxetine was also postulated to work by inhibiting endothelial nitric oxide production. The long term and regular use of these agents will bring about up to a 8.8 fold increase in lengthening of ejaculatory latency around 2 weeks later. Although on-demand use of such agents, around 4-5 hours before expected intimacy, also demonstrated a certain level of clinical benefit, the overall effectiveness was shown to be only around 1-2 fold increase in ejaculatory latency. Apart from the above agents, there is a recently developed selective serotonin reuptake inhibitor, dapoxetine, which could achieve a 2-3 fold increase in ejaculatory latency a few hours after consumption.

**Topical anaesthesia**

Topical use of lidocaine on the penis is also another potential agent for the disorder. However, further evidence is needed to justify its use for ejaculation control.

**Behavioural desensitisation technique**

There are two kinds of techniques used in helping patients to master the control of ejaculation. A stop-start manoeuvre, proposed by Semans, is featured by repeated stopping of the thrusting activity before ejaculation during coitus. The squeeze technique is the application of manual pressure on the glans penis just before ejaculatory inevitability and sexual stimulation is resumed only when the patient’s sexual excitement has partially subsided. This technique is encouraged to be practised by patients during self-masturbation as well as coitus. With practice and instruction, the patient’s spouse can also be involved in the training.

On the whole, the aim of both manoeuvres is to allow the patient to heighten his sense of mastering the reflex by experiencing delay in ejaculation while exposing to repeated waves of sexual stimulation.

**Conclusion**

Erectile dysfunction and premature ejaculation are the two most common sexual dysfunctions presented by male patients in clinical encounters. Their management encompasses a multi-dimensional approach. The psychological and sexual components are definitely important in addressing the mind set and the psychological problems experienced by the sufferers. In the use of pharmacotherapy, the proper choice of phosphodiesterase inhibitors and selective serotonin reuptake inhibitors will strategically relieve patients from symptoms of specific characteristics.

**References**

**Valdoxan®**

**Composition**: Valdoxan 25 mg: film-coated tablet containing 25 mg of agomelatine. Contains lactose as an excipient.

**Indication**: Treatment of major depressive episodes in adults. Design and administration**: The recommended dose is 25 mg once daily taken orally at bedtime. After two weeks of treatment, if there is no improvement of symptoms, the dose may be increased to 50 mg once daily.

**Hypersensitivity to the active substance or to any of the excipients. Hepatic impairment (i.e. cirrhosis or active liver disease).** Concomitant use of potent CYP1A2 inhibitors (e.g. fluvoxamine, ciprofloxacin) (see “Interaction”).

**Contraindications**: Contraindicated for use in patients with abnormalities of liver function tests: liver function tests should be performed in all patients before starting treatment. Treatment with Valdoxan should only be prescribed after careful consideration of benefit and risk in patients with abnormalities of liver function tests (see “Posology” section).

**Elderly patients (≥75 years)**: Treatment should only be prescribed after careful consideration of benefit and risk in patients with abnormalities of liver function tests.

**Elderly patients with dementia**: Treatment should only be prescribed after careful consideration of benefit and risk in patients with abnormalities of liver function tests.

**Fertility**, **Pregnancy**: Not recommended.

**Breastfeeding**: Not recommended.

**Drive & use machines**: With precautions.

**Agomelatine** is a melatonergic agonist (MT1 and MT2 receptors) and 5-HT2C antagonist. Agomelatine resynchronises circadian rhythms in animal models of circadian rhythm disruption. Agomelatine increases noradrenaline and dopamine release specifically in the frontal cortex and has no influence on the extracellular levels of serotonin.


**Overdose**: Properties: Agomelatine is a melatonergic agonist (MT1,2) and 5-HT2C antagonist. Agomelatine resynchronises circadian rhythms in animal models of circadian rhythm disruption. Agomelatine increases noradrenaline and dopamine release specifically in the frontal cortex and has no influence on the extracellular levels of serotonin.


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**Table 1**: Treatment of major depressive episodes

<table>
<thead>
<tr>
<th>Week 6</th>
<th>3 responders out of 4^4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 12</td>
<td>3 remitters out of 4^5</td>
</tr>
<tr>
<td>Week 24</td>
<td>8 relapse-free out of 10^6</td>
</tr>
</tbody>
</table>

**Improvement in feeling good, daytime functioning and quality of sleep^4**

1 tablet at bedtime
Female sexuality is a relatively neglected area in science till 1953 when Kinsey et al. published their landmark report “Sexual Behaviour in the Human Female” and enlightened our understanding into this mystical area. Researches into female sexual function and dysfunctions thrived rapidly in the last 2 decades and cast new light on this common public health problem. Sexual function is an integral part of a woman’s health and contributes to overall well-being. Women with sexual dysfunctions have been shown to suffer impaired health-related quality of life.

Epidemiology of Female Sexual Dysfunctions

Female sexual dysfunctions (FSD) were highly prevalent worldwide with incidences increasing with age. The most frequently quoted figures came from a large scale epidemiological survey, the “Prevalence of Female Sexual Problems Associated with Distress and Determinants of Treatment Seeking” (PRESIDE), which investigated 31,581 women aged 18 years or older in the United States and found 12% of them suffered from at least one sexual dysfunction. A recent local community-based survey interviewing over 1,500 married women also revealed over a quarter of the subjects were troubled by FSD.

New Model of Female Sexual Response Cycle

The Sexual Response Cycle was first proposed by Masters and Johnson in the 1960s, which was a linear non-overlapping four-stage model involving sequential progression through phases of “excitement”, “plateau”, “orgasm”, and “resolution”. This was later modified by Kaplan into a triphasic model consisting of “desire”, “arousal”, and “orgasm” phases, forming the basis of how sexual dysfunctions were classified in modern medicine. However, these models were criticised to be based on the male experiences, rather genitally focused, and did not truly reflect responses of the females. Basson presented a new model with circular overlapping phases in a variable sequence blending the responses of the mind and the body. This model heavily influenced the recent revision of FSD classification in the 5th edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-V) in 2013.

Pathophysiology of the Female Sexual Function

The female sexual function is believed to be mediated by interplay of excitatory actions of dopamine in the hypothalamus and the limbic system, noradrenaline in the autonomic nervous system, and inhibitory activity of serotonin. Hormonal changes following the female reproductive stages shape the manifestations of FSD as women age. The onset of menopause is marked by drastically elevated levels of gonadotropins to compensate for reduced syntheses of androgens, oestrogens and progesterone in ovarian failure. Oestrogen deficiency leads to thinning and decreased vascularity of the genital mucosa and secretions from the glands, resulting in vulvovaginal atrophy (VVA) manifesting as vaginal dryness and dyspareunia. Decline in free testosterone levels leads to androgen insufficiency characterised by diminished libido and sexual arousal.

Clinical Evaluation and Diagnosis of Female Sexual Dysfunctions

For cultural reasons, women seldom volunteer sexual complaints during clinic visits. However, sensitive doctors should pick up the clues from covert complaints like pelvic pain for opportunistic discussion after reassurance on confidentiality. Patients should always be warmed up with open-ended questions and empathetic listening, before more in-depth non-judgemental exploration into diagnostic information using leading questions.

Normal sexual response relies on healthy functioning of the mind, nervous, vascular and hormonal systems. General enquiry into the patient’s cardiovascular health, endocrine function, past psychiatric, sexual, reproductive, surgical, trauma and medication history, as well as current mental and sexual status, substance use, interpersonal relationships, and social stressors will be indispensable in identifying the underlying aetiological factors and comorbidity. Assessing the patient’s motivation for treatment is essential in formulating care plan. The physical evaluation should include a pelvic exam to search for evidence of VVA, dryness, infection, old trauma, pain-trigger points, pelvic floor function and to provide opportunity for
education on anatomy and sexual function. Basic investigations include renal and liver function tests, complete blood count, fasting sugar and lipid profile, thyroid function and sex hormones profile. Causes of FSD are listed in the table below.

<table>
<thead>
<tr>
<th>Table 1. Aetiology of Female Sexual Dysfunctions</th>
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<tr>
<td><strong>Local:</strong></td>
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<tr>
<td><strong>Endocrine:</strong></td>
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<td><strong>Vascular:</strong></td>
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<tr>
<td><strong>Neurological:</strong></td>
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<tr>
<td><strong>Medications:</strong></td>
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<tr>
<td><strong>Psychosocial:</strong></td>
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Revised diagnostic criteria of FSD under the DSM-V require the symptoms to be severe enough to cause clinically significant distress, present in over 75% of the occasions (except in pain disorder), and lasting for at least 6 months. Disease specifies like “lifelong (primary) or acquired (secondary)” and “generalised or situational (across time and partners)” and severity can be added. The dualistic distinction between organic and psychological aetiology was abandoned, since both are contributing in most cases. The diagnostic group of FSD consists of disorders of the sexual response cycle and sexual pain disorders, and they are often comorbid with each other.

Screening instruments are useful in busy clinic settings for identification, measuring severity and improvement in FSD. The Female Sexual Function Index, a 19-item questionnaire assessing domains of desire, arousal, lubrication, orgasm, pain and satisfaction, was translated into a Chinese version with satisfactory performance in screening for FSD.

Disorders of the Sexual Response Cycle

Recent research findings revealed that women may not experience sexual desire before arousal and may not be able to differentiate between the two. They may engage in sexual activities for spontaneous innate sexual desire or for motivations other than desire like non-sexual rewards from feelings of emotional intimacy and being needed, relieving tension, improving self-image or emotional well-being. These evidences were adopted by the latest DSM-V classification in combining the original Hypoactive Sexual Desire Disorder (HSDD) and Female Sexual Arousal Disorder (FSAD) in the DSM-IV-TR (Text Revision) into a single category of Female Sexual Interest / Arousal Disorder (FSIAD).

Arousal is marked by increased genital blood flow, vulval and vaginal swelling and lubrication. However there was poor correlation between subjective feeling of sexual excitement and objective genital arousal responses of vulval swelling and vaginal lubrication. In contrast to men, women can achieve multiple orgasms during intercourse. However, orgasmic capacity in women is partly determined by genetic factors. Women with lifelong and generalised orgasmic problems may then be particularly difficult to treat. Secondary orgasmic disorder is usually the result of another sexual dysfunction.

The PRESIDE reported that 10%, 5.4% and 4.7% of the respondents suffered from dysfunctions of desire, arousal and orgasm, with the highest prevalence among the older group aged 45-65 years. A recent local community survey also reported similar findings in which 10.5%, 9.3% and 8.8% of respondents suffered from dysfunctions in sexual interest, lubrication and orgasm respectively.

Aetiology

Age-related changes in the hypothalamic-pituitary-gonadal axis physiological function set the backdrop upon which pathological factors may act. The level of free testosterone level, which modulates sexual desire, starts to decline at early reproductive years, and together with the menopausal drop in oestrogen level, which facilitates receptivity of genital mucosa to sex, results in escalating difficulties in achieving sexual desire, arousal and orgasm as women age. Sexual responses are compromised by disorders listed in Table 1. Organic causes are more common among aged women. Serotoninergic antidepressants can cause arousal and orgasmic difficulties.

Regulated by similar pathways and neurotransmitters in the hypothalamus and limbic systems, it is understandable that sexual function is adversely affected by psychiatric illnesses, like anxiety and depression, especially in younger patients in whom an organic pathology is less likely. The influence of social factors like disharmonious partner relationship on sexual motivation cannot be overemphasised. Moreover women’s sexual attitude is moulded by past sexual experiences, self-image, and cultural atmosphere. Past traumatic sexual experiences, poor body image, feeling of insecurity and sexual inhibition hinder women from expressing their sexual responses healthily.

Management

Clinical assessment should provide information on the chronology and severity of symptoms across situations, and identify underlying physical and psychological pathology. Management starts with general lifestyle advices like smoking & alcohol cessation, weight control, stress coping, and basic counselling with education on female sexual anatomy, physiology and function across the lifespan, and relationship issues. Correction of misconceptions, maladaptive thinking and advice on coital positions and techniques can usually relieve much of the tension. Individualised treatments will depend on the reproductive stage and the likely underlying causes. Acquired situational dysfunctions point to the presence of underlying precipitating factors. Attention should also be given to the partners’ sexual function in providing adequate sexual stimulation for the patients during intercourse.
Psychiatric disorders underlying FSD should be dealt with. Mirtazapine, escitalopram and agomelatine offer more favourable sexual side effect profiles among antidepressants. Chronic relationship tension among couples may benefit from marital therapy. Revision of medical regimes by decreasing doses or switching to alternatives with less sexual side effects is helpful.

Sex therapy comprises sex education and sensate focus exercises for re-discovering sexual pleasure through homework exercises consisting of gradually progressing from non-sexual touching towards more sexual interactions by guiding the attention back to erotic sensations. It works by reducing performance anxiety through diminishing spectator behaviour, a tendency to evaluate self from a third person perspective during sex causing the anxiety. Systematic desensitisation is a behavioural technique for anxiety through learning to relax during sexual activity. Cognitive restructuring aims at correcting thoughts inhibiting sexual responses like poor self-appraisal and negative expectations. Masturbatory training, changing coital patterns and enhancement of partner communication, can be facilitated by coaching videos and sex toys like vibrators. Directed masturbation is effective in female orgasmic dysfunctions through addressing negative attitudes about masturbation and applying knowledge during intercourse with the partner.

Systemic hormonal treatment for FSIAD has attracted much attention in recent researches. Transdermal testosterone patch has been shown in trials to improve sexual desire and reduce distress in surgically menopausal women receiving oestrogen, as well as in naturally menopausal and premenopausal women. Regrettfully, long term safety has not been proven. Premenopausal women with no androgen insufficiency are less likely to benefit from testosterone treatment. Systemic oestrogens are highly effective in relieving vasomotor symptoms and improving sexual functioning, but their use in women with breast and endometrial cancer is not recommended.

There has been enthusiasm in applying the successful experiences in treating male SAD with Phosphodiesterase-5 inhibitors to female HSSD. However, only isolated studies showed its efficacy in women with spinal cord injury and antidepressant-induced FSAD. Bupropion, a dual noradrenaline and dopamine reuptake inhibitor, has demonstrated efficacy in increasing sexual desire, arousal and activities in non-depressed women in small studies. It can be adjunctive treatment for women with comorbid major depressive disorder and FSD.

Local treatment with lubricant and oestrogen cream is safe and effective in improving VVA in postmenopausal women. Novel physical treatment for FSAD has been marketed like Zestra, an over-the-counter massage oil applied to the clitoris, labia and vaginal opening to improve arousal and orgasm. Eros-Clitoral Therapy Device is a FDA-approved battery-operated device applying a vacuum to the clitoris to enhance its engorgement and facilitate arousal and orgasm.

Drugs under investigation include synthetic steroid tibolone, melanoocortin-4 receptor agonist bremelanotide, and centrally acting 5-HT1A receptor antagonist and 5-HT2A receptor antagonist flibanserin. Other potentially useful drugs are gepirone, phentolamine, alprostadil, oxytocin, L-arginine and levodopa. Although these drugs have demonstrated some efficacy in improving sexual function, their use is still based on insufficient evidence regarding long term effect and safety. To date, no drug was yet approved for FSD by the Food and Drug Administration of the United States (FDA), except ospemifene and topical oestrogen in postmenopausal women.

**Female Sexual Pain Disorders**

Female sexual pain disorders (SPD) under the DSM-IV-TR classification consist of two mutually exclusive categories, dyspareunia and vaginismus, the terminology of which can be dated back to the 1800s. Dyspareunia is characterised by genital pain during sexual intercourse, while vaginismus by involuntary vaginal muscle spasms. However, recent researches showed significant overlap between the two conditions. These new evidences were incorporated in the latest DSM-V classification in merging the two into one single category of Genitopelvic Pain / Penetration Disorder (GPPD).

The prevalence rates of dyspareunia reported were highly variable, but lifetime prevalence has been reported to be as high as 18.5%. Since the diagnosis of vaginismus involves gynaecological examinations, there was no population-based study on its prevalence, though it was estimated to be lower than 1%. A local community survey found 8.4% of respondents suffered from physical pain during sex.

**Aetiology**

SPD can be attributed to biological factors including genetic, congenital, hormonal and inflammatory causes. Increased pain sensitivity at the vulval region, hypertonicity and hyperactivity of pelvic floor muscles are responsible. VVA secondary to hormonal decline causes vaginal dryness, resulting in painful intercourse. Women with history of penetrative sexual abuse, poor sexual knowledge, negative sexual attitudes, relationship problems and performance anxiety are prone to SPD. Recent research findings support the fear-avoidance model in which sexual pain is perpetuated in a vicious cycle triggered by pain-provoked fear, catastrophising thoughts, muscle tension and avoidance of the painful situations.

**Management**

Evaluation of painful sexual intercourse should begin with identifying possible underlying organic pathology. Pain during penetration associated with a positive cotton swab test and absence of physical findings points towards provoked vulvodynia. A thorough assessment into the psychological functioning and social situations will also provide hints to the underlying causes. Motivation for treatment is usually hindered by fear-avoidance, and not uncommonly, women with GPPD seek help for unconsummated marriage because of pressure from partners who concern more about conception.
Physical treatment of SPDs should be directed towards the underlying organic pathology. Local anaesthetic agents like lidocaine works by reducing hypersensitive nerves around the superficial genital structures. Topical oestrogen can alleviate symptoms of VVA. Ospemifene, a selective oestrogen receptor modulator, targets at specific tissues but do not pose the same risk of oral oestrogen. It was approved by the FDA in treating VVA and dyspareunia in postmenopausal women. Oral tricyclic antidepressants, gabapentin and anticonvulsants have been used in vulvodynia with more constant pain. In resistant cases, botulinum toxins injections can alleviate peripheral hypersensitivity and pelvic floor hypertonicity. Surgical treatment in the form of vestibuloplasty is highly effective, when less invasive treatments failed. Other useful physical treatments include biofeedback, transcatheter and intravaginal electrical stimulation.

Psychotherapy was shown in systematic reviews to be effective in improving outcomes of orgasmic disorders and SPD. Central to this treatment is relaxation methods applied with systematic desensitisation. Sex therapy applies the same set of skills in FSIAD in alleviating anxiety through sensate focus exercises, but also involves pelvic floor muscle exercises, massage, and gradual vaginal dilatation. Vaginal dilatation exercise works by desensitising hypersensitive tissues around the introitus and relaxes the pelvic floor muscles, through stages of adapting the vaginal wall to foreign bodies, transfer of control to the partner, and finally engagement in full penetrative intercourse. The success rate of sex therapy in treating vaginismus has been reported to approach 100%.

Conclusion

Latest research evidences enriched our understanding into the female sexual functions and dysfunctions and fueled development in the disease classification and treatment approaches. Treatment of the underlying organic pathology and alleviation of sexual side effect of drugs are essential. Attention to the underlying psychosocial factors can provide deeper insights into the root of problems for more comprehensive interventions. Multidisciplinary management strategies based on a biopsychosocial approach will be indispensable in improving the quality of life in women suffering from FSD.

References


MCHK CME Programme Self-assessment Questions

Please read the article entitled “Female Sexual Dysfunctions – An Update” by Dr Pui-tat HO and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 28 February 2015. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

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

1. The incidence of female sexual dysfunction increases with age.
2. The latest model by Basson described the female sexual response cycle in circular overlapping phases.
3. The onset of menopause is characterized by drastic drop in gonadotropin levels.
4. Vulvovaginal atrophy is associated with estrogen deficiency.
5. In diagnosing female sexual dysfunctions according to the latest DSM-V criteria, the symptoms have to persist for at least 6 months.
6. Women always experience sexual desire before arousal.
7. Sex therapy can reduce performance anxiety.
8. Long term safety in the use of transdermal testosterone patch in female sexual desire disorder is established.
9. Dyspareunia and vaginismus are usually easily distinguishable clinically.
10. Vaginal dilatation exercise works by the principles of systematic desensitization in treating vaginismus.

ANSWER SHEET FOR FEBRUARY 2015

Please return the completed answer sheet to the Federation Secretariat on or before 28 February 2015 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Female Sexual Dysfunctions – An Update

Dr Pui-tat HO
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Associate Consultant
Psychosexual Clinic, Caritas Medical Centre

Answers to January 2015 Issue

Air pollution: Its impact on adult patients with respiratory conditions

Presentation: Milnacipran oral capsules. Indications: Treatment of major (i.e. characterised) depressive episodes in adults. Dosage: 50mg twice daily. Dosage should be reduced to 25mg twice daily in patients with creatinine clearance between 30ml/min and 80ml/min. Dosage should further be reduced to 25mg daily in patients with creatinine clearance below 30ml/min. Contraindications: Hypersensitivity to milnacipran or excipients. Concomitant use with non-selective MAO inhibitors, 5-HT1 receptor agonists (triptans), parenteral epinephrine or norepinephrine, clonidine, A-selective MAO inhibitors. Uncontrolled hypertension. Severe or unstable coronary heart disease. Lactation. Precautions: Patients with a history of suicide-related events. Children below 18 years of age. Renal failure. Patients with an obstruction to emptying the bladder. Hypertension or cardiac disease. Angle-closure glaucoma. Epilepsy. Patients taking clonidine or any other therapy known to cause hypertensive crisis, and in cirrhosis or undemunished patients. Patients receiving concomitant treatment with oral anticoagulants, medicines acting on the platelet function such as NSAIDs and aspirin, or other medicinal products likely to increase the risk of bleeding. Interactions: Linezolid, alcohol, non-selective MAO inhibitors, MAO-A and MAO-B inhibitors, 5-HT1D agonists, digitals, adrenaline, noradrenaline, clonidine. lithium. Undesirable effects: Agitation, anxiety, depression, eating disorder, sleep disorder, suicidal behavior, headache, migraine, tremor, dizziness, dysaesthesia, somnolence, tachycardia, palpitations, hot flushes, hypertension, nausea, constipation, diarrhoea, abdominal pain, dyspepsia, vomiting, dry mouth, pruritus, rash, hyperhidrosis, musculoskeletal pain, dysuria, pollakiuria, ejaculation disorder, erectile dysfunction, testicular pain, fatigue. For uncommon, rare and very rare undesirable effects, please refer to the full prescribing information. Preparation: 25mg x 28s; 50mg x 28s. Full prescribing information is available upon request.

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Gender Dysphoria in Adulthood: A Guide for Medical Professionals

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Background

Gender Dysphoria is defined as the discomfort or distress caused by the discrepancy between a person’s gender identity (their psychological sense of themselves as men or women) and the biological sex they were assigned at birth (with the accompanying primary/secondary sexual characteristics and/or expected social gender role). Sometimes, that distress will be sufficiently intense that people may undergo transition from one point on a gender continuum to another, i.e. from male to female or from female to male. The transition may involve changes in social role, and may lead to access to hormones or even surgery. (Diagnostic & Statistical Manual of Mental Disorders [DSM], 5th Edition, 2013)

There are two main groups of gender incongruence presentations: (1) Male-to-Female (sometimes abbreviated to MtF or known as transwomen) or (2) Female-to-Male (sometimes abbreviated to FtM or known as transmen). There are also some seeing themselves as non-gender (non-male non-female) or elsewhere on a gender continuum and present accordingly. These gender presentations are, though less common, but no less valid. (Standards of Care, World Professional Association of Transgender Health [WPATH], 2011)

In our clinical care, Transsexualism is most commonly seen. It is considered as the most extreme form of Gender Dysphoria. People suffering from Transsexualism have a strong and irresistible desire to transit and be accepted as a member of the opposite sex. They will try their every means to make their own body as congruent to their desired sex as possible, usually through hormones treatment and surgery. Transsexualism is coded in the current International Classification of Diseases as ICD-10 F64.0.

The current medical view regarding Transsexualism, and/or any other gender diagnoses, is not considered as a kind of mental illness. Emphases have much been paid on the associated psychological problems related to it, in which the stress due to unmanaged gender dysphoria, or associated stigmatisation that had accompanied the diagnoses may result in significant clinical problems. Disentangling, identifying and managing these factors can be complex, requiring specialist experience of the field. (WPATH, 2011)

It should be noted that sexual orientation, an enduring pattern of romantic or sexual attraction (or a combination of these) to other persons, is distinct and independent from one’s gender identity.

Names and Pronouns

Terminology used in the current field can vary widely. Individual preferences should be respected. People with Gender Dysphoria might identify themselves as simply as men and women. Some may consider themselves as gender variant, transgender, transsexual, transvestite, non-gender, pangender, polygender, genderqueer, androgyne, or any other of a myriad of terms. (WPATH, 2011)

The attempt to list and define all possible gender terms is potentially controversial and outside the scope of this single document. However, it is always a good practice for medical service providers addressing users of gender services as those users would wish to be addressed. If in doubt, it is always respectful to ask an individual which form of address they prefer. In waiting rooms and other public settings where there is no opportunity to ask beforehand about the preferred form of address, a reasonable compromise might be using the full name without other prefixes. Any written medical correspondence should always take into the account the possibility that others in the household of the service users are unaware of their gender circumstances. (General Medical Council, 2013)

Experiences in the West

Gender services are usually classified as a tertiary health care service in the West, upon referrals from primary care physicians or mental health professionals. Referrals to gender services should be on the basis of the patient’s reported history of gender discomfort, including a full description of the nature and extent of any co-existing mental health diagnoses, if present. Though a number of investigations have been done trying to elucidate the association between psychiatric problems and transsexualism, this remains a hot topic for researchers. Many of them present with significant psychiatric illnesses which are co-existing with the Gender Dysphoria. These have shown to be one of the negative prognostic factors for sex reassignment surgery in the future.

However, having co-existing disorders of mental or physical health, disorders of learning, development (including autistic spectrum) or personality, and dependence on alcohol or other substance are never contraindications to referrals. These problems have to be stabilised before referrals are made, or having been referred to additional services as appropriate. It has
been stated in various international guidelines that any clinically significant medical or mental health concern has to be stabilised before any physiological treatment is initiated.

It is not unusual to see that the distress arising from the transition will diminish or disappear altogether with the successful addressing and management of Gender Dysphoria itself. Individuals referred to a gender service are not required to have started living in their desired future gender role, and it is not necessary for them to have undertaken psychotherapy prior to referrals. Equally, some people may have already taken steps in the transition before any medical access.

**Diagnosis**

Transsexualism and/or Gender Identity Disorder have been the two commonly used interchangeably terms in the diagnostic descriptions of gender conditions in medical literatures. Transsexualism is coded according to the version 10 of the International Classification of Diseases (ICD-10). The ICD-10 diagnosis of Transsexualism in adults requires three criteria to be met:

1. The desire to live and be accepted as a member of the opposite sex, usually accompanied by the wish to make his or her body as congruent as possible with the preferred sex through surgery and hormone treatment.
2. The transsexual identity has been present persistently for at least two years.
3. The disorder is not a symptom of another mental disorder or a chromosomal abnormality.

In our locality, some clinicians might also refer to the United States system that is the equivalent of ICD-10, the fourth edition of the Diagnostic and Statistical Manual (DSM-IVR), which states that Gender Identity Disorder “is a medical condition in which there is strong and persistent cross-gender identification and a persistent discomfort with the sex or a sense of inappropriateness in the gender role of sex”.

In the latest published DSM (DSM-V) classification in 2013, one may have noticed that a diagnosis with a broader concept is adopted and has replaced the term “Gender Identity Disorder” by “Gender Dysphoria”. Since patient needs vary considerably and do not necessarily fit the narrow definitions in older classification systems, it is therefore recommended that any primary care physician or other specialists refer patients to gender services on the basis of the definition of Gender Dysphoria set out above.

**Prevalence**

There has been reported that the prevalence of transsexualism as 1 in 30,000 natal males and 1 in 100,000 natal females, using data derived from the results of a study by Hoenig & Kenna in the 1950s and 1960s (Hoenig 1974). In fact, many other studies later on reported higher prevalences, but the precise prevalence remains unclear (Zucker 2009). Most of the study subjects were patients presenting to medical services seeking treatment for the gender identity problems. However, a significant proportion of transgender people, i.e. those who are content with their status or who have found their own coping mechanisms independent of medical input, will never present to medical services, resulting in a possible underestimate of the true prevalence of transgenderism.

It has been reported that the prevalence may also be affected by other factors, such as having easier access to gender service including sex reassignment surgery (Tsui 1988), or in countries with greater accommodation and understanding of the issues, as in the Netherlands and Germany (Bakker, 1993). Though the precise prevalence is hard to estimate, the general consensus among epidemiological studies is that gender dysphoria are indeed ‘rare’. It is more common in people who are born male than in those born female (Zucker 2009).

**Aetiology**

There have been debates about how gender dysphoria should be classified based on its aetiology. Arguments exist among the origins of psychological, biological or social bases. Some people thought that gender dysphoria is in fact a variation on the normal human experience of gender and argues that classifying it as a ‘disorder’ does not allow for the existence of ‘healthy, functional transgender people’ (Bockting 2009). Yet, those who support the current mental illness classification are likely to argue that gender dysphoric patients may have an unconsciously motivated false belief that they are in the ‘wrong’ physical gender. Psychosocial factors include parental factors such as an emotionally distant father (Cohen-Kettenis 1990), parents with an unfulfilled desire for a child of the opposite sex (Buhrich 1978) and parental encouragement of the child participating in the opposite gender role (Schott 1995) and even childhood abuse have been implicated in the development of gender variant behaviour (Gehring 2005). Others, however, have proposed anomalies in brain anatomy which have resulted in a gender identity that does not correlate with the anatomical sex. There were evidence to support a biological cause as proposed by Zhou (Zhou et al, 1995). They have found differences between the volume of the central sulci of the stria terminalis (a part of the hypothalamus that is central to sexual behaviour) in the autopsied brains of a sample of transgender and non-transgender adults. More recent genetic studies have suggested a link between excessive prenatal androgen exposure and the development of gender dysphoria (Veale, 2010).

**Management**

A supportive primary care giver is crucial to the long term health of people with Gender Dysphoria. It is not ethical to ban any treatment for patients with gender dysphoria on the basis of one’s religious and cultural backgrounds. Prompt referrals to other suitable specialists should be carried out if there is any foreseeable disturbance in the therapeutic relationship. It is also important to note that surgical options are not always wanted, where some may be sufficient to have hormone therapy alone.

Relevant basic physical examinations and/or investigations should be performed during each visit. They serve as important indicators to the later physical
treatments. These include checking the patients’ weight and blood pressure, as well as their general health and well-being. It is yet important to be alerted that patients are entitled to refuse these examinations, although physical examination will become inevitable if sex reassignment surgeries are recommended. Detailed documentation of findings and/or reason of refusals are recommended in the case notes. (GMC, 2013)

**Laboratory investigations**

Routine blood tests are recommended during the first appointment. These include serum lipids, LFTs, bone metabolism, LH, FSH, SHBG, oestradiol, testosterone, dihydrotestosterone, prolactin, prostate specific antigen for Male-to-Female (phenotypic males transitioning to female) patients; and serum lipids, LFTs, bone metabolism, LH, FSH, SHBG, oestradiol, testosterone, dihydrotestosterone, FBC for Female-to-Male (phenotypic females transitioning to male) patients. Before any hormone prescription, these results should be reviewed by the gender service, preferably with the help of the team endocrinologist. (WPATH, 2011)

**Life-style modifications (WPATH, 2011)**

1. **Smoking**
   It is important to advise smokers to quit in order to minimise the overall risk of thromboembolism and polycythemia, which are likely to be increased by oestrogens and testosterone respectively. As a general rule, hormones are not initiated, or dosage increased, while the individual continues to smoke.

2. **Alcohol & substance use**
   Alcohol consumption must be within the recommended weekly limits. This is to minimise the risk of hepatotoxicity. Substance use must be stabilised, or where possible, stopped.

3. **Obesity**
   Weight reduction is strongly recommended, as obesity itself has an increased risk of thromboembolism and in future, the surgical risks.

4. **Occupation**
   It is expected that gender patients should have structural and meaningful day-to-day activities as they progress through their gender treatment. This might involve employment, full or part-time study, caring responsibilities or being otherwise meaningfully occupied. This is especially important as a 12-month period of “real-life experience” is a basic requirement according to the patient’s genital physiology. However, if their destination is to seek genital surgery in the longer term, they do need to address the issue of occupation in such broad sense.

**Providing ongoing assessment and treatment monitoring (GMC, 2013)**

After the initial assessment at the gender clinic, the primary referrer or physician can offer ongoing prescription of hormones and organising blood and other diagnostic tests as recommended by the specialist gender clinician. It is expected that life-long maintenance of the patients’ well-being rely much on the primary care services. This involves conducting simple monitoring tests, examinations and medication reviews as recommended. The standardised mortality ratio for those receiving treatments seems to be comparable to the general population.

It is also important to have proper documentations in the patient record and reflect the patient’s desired future gender role and to ensure that such changes facilitate screening for physiologically appropriate risks. For Male-to-Female patients, theoretical risks of breast and prostate cancer, but not cervical cancer, have to be fully explained, while for Female-to-Male patients, suitable gynaecological examinations should be carried out according to the patient’s genital physiology.

Careful handling of information and tactful consideration are always expected to ensure the patients’ gender histories are not disclosed (directly or indirectly) to third parties, in part because such disclosure can represent a criminal offence. The best general rule is to always discuss matters in advance with the individual patient and obtain his/her informed consents.

People are required to attend the gender service regularly. Ideally, at least three times yearly consultations for review with one or more specialist gender clinicians are expected. During each visit, areas like discussion of hormones; referrals to other services (for example, speech therapy, surgery, etc.) and necessary supports as in various social, occupational, family/relationship changes or developments aspects can be addressed.

**References**

American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders (5th edn) (DSM-5). APA.


General Medical Council (2013). Gender dysphoria services: a guide for General Practitioners and other healthcare staff (GMC).


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Introduction

Sex is being assigned at birth based on biological indicators of male and female, such as sex chromosomes, gonads, sex hormones, and internal and external genitalia. Gender identity, which refers to an individual’s personal sense of self as male or female, begins to take shape in the second year of life and is developed by age 3. Gender role behaviour, on the other hand, refers to activities, interests, use of symbols, styles, or other personal and social attributes that are recognised as masculine or feminine. Gender identity and role behaviour are usually concordant with the biological or anatomical sex. Some children, however, behave differently and are considered as gender nonconforming. Gender nonconformity is a form of gender atypical or variant development and refers to the extent to which a child’s gender identity, role, or expression differs from the cultural norms prescribed for children of a particular sex. Gender nonconforming children appear to be a heterogeneous group with varying degree of severity of gender nonconformity. A child with discordance of gender identity and anatomical sex usually also displays gender role nonconformity, yet a child with gender role nonconformity does not necessarily have gender identity discordance. Gender dysphoria as a general descriptive term refers to discomfort or distress that is caused by gender identity discordance (and the associated discordance of gender role behaviour and anatomical sex). Only some gender nonconforming children or adolescents experience gender identity discordance and dysphoria at some point in their lives. School age is a phase of understanding and consolidation of gender and gender roles, and gender differences become more rigid and stereotypical.\(^1\)

In response to gender nonconforming children, parents, school teachers and social workers often try to redirect their gender nonconforming behaviours into more socially acceptable ones that are expected for the child’s assigned sex. Others may ignore these gender nonconforming behaviours and believe that it is just a phase and they will grow out of it. Children are often sensitive to the reactions of others, whether positive or negative, to their gender nonconformity. When they feel being ignored, stigmatised or rejected, they may no longer verbalise their feelings of gender mismatch and suppress their gender nonconforming behaviours. These negative experiences may also result in isolation, emotional and behavioural problems, as well as low self-esteem in these children.\(^3\) In addition, the prevalence of autistic spectrum disorders seems to be higher in clinically referred, gender dysphoric children than in the general population.\(^4\)

As gender nonconforming children approach puberty, the development of secondary sexual characteristics may heighten their distress. Yet there are some adolescents with gender dysphoria who do not report a history of gender nonconforming behaviours in childhood; the first emergence of gender dysphoria in adolescence often catches others by surprise.\(^5\)

Gender nonconforming children and adolescents are at risk of developing emotional, behavioural, social and mental problems. They are more likely to experience harassment in school,\(^6\) putting them at risk for social isolation, depression, and other negative sequelae.\(^7\) Transgender youths are also known to have higher rates of self-harm, suicidality and high risk behaviours such as substance abuse, earlier and unprotected sexual activity.\(^8\)

Some experience gender dysphoria at such a level that the distress meets the diagnostic criteria of Gender Dysphoria of Diagnostic Statistical Manual of Mental Disorders 5th version (American Psychiatric Association, 2013) as shown in Table 1.

### Table 1. Childhood Gender Dysphoria Diagnostic Criteria

<table>
<thead>
<tr>
<th>Criterion A1:</th>
<th>A marked incongruence between one’s experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least six of the following (one of which must be Criterion A1):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one’s assigned gender).</td>
</tr>
<tr>
<td>2.</td>
<td>In boys (assigned gender), a strong preference for cross-dressing or simulating female attire; or in girls (assigned gender), a strong preference for wearing only typical masculine clothing and a strong resistance to the wearing of typical feminine clothing.</td>
</tr>
<tr>
<td>3.</td>
<td>A strong preference for cross-gender roles in make-believe play or fantasy play.</td>
</tr>
<tr>
<td>4.</td>
<td>A strong preference for the toys, games, or activities stereotypically used or engaged in by the other gender.</td>
</tr>
<tr>
<td>5.</td>
<td>A strong preference for playmates of the other gender.</td>
</tr>
<tr>
<td>6.</td>
<td>In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities and a strong avoidance of rough-and-tumble play; or in girls (assigned gender), a strong rejection of typically feminine toys, games, and activities.</td>
</tr>
<tr>
<td>7.</td>
<td>A strong dislike of one’s sexual anatomy.</td>
</tr>
<tr>
<td>8.</td>
<td>A strong desire for the primary and/or secondary sex characteristics that match one’s experienced gender.</td>
</tr>
</tbody>
</table>

B. The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning.

Specify if: With a disorder of sex development (e.g., a congenital adenogenital disorder such as 255.2 [E25.0] congenital adrenal hyperplasia or 259.50 [E34.50] androgen insensitivity syndrome).

---

Dr Kwai-wah HONG
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Specialist in Psychiatry, Private Practice, Alliance Medical Centre
Aetiology

Social, psychological, and biological factors, including genetic and environmental ones, interactively influence childhood gender role behaviour and gender identity. No single cause has yet been found with certainty for the development of gender nonconformity and dysphoria.

Our previous model of understanding the roles of nature and nurture in causing childhood gender role differences might be overly simplistic, and it should be replaced by a new model showing biological and environmental factors influencing one another bidirectionally during critical periods in neuro-developmental processes that are sometimes modifiable and sometimes fixed.

Prevalence

Prevalence of gender nonconforming and gender dysphoric children and adolescents is uncertain. More recent studies noticed an increasing number of children/adolescents attending gender clinics. Zucker reported a four to five fold increase in child and adolescent referrals to their Toronto, Canada clinic over a 30-year period.

Developmental Course

In follow-up studies of prepubertal children (less than age 12) with gender dysphoria, the dysphoria persisted into adulthood for only 6-23% of children. Surprisingly, homosexual or bisexual orientation in adulthood was the most common outcome in these children, and the percentage can be as high as 75% in boys. Newer studies, also including girls, showed a 12-27% of persistence rate. These studies confirmed that gender dysphoria diminished or resolved by itself in the majority of children as they entered into adolescence or adulthood without specific interventions. However, in my clinical experience, a milder form of gender role nonconformity usually persists after resolution of gender dysphoria. Possible predictors of persistence of gender dysphoria into adolescents include longstanding severe dysphoria and the child’s insistence of the nonconforming feelings of identity. In contrast, most adolescents with gender dysphoria are likely to persist into adulthood.

Early Identification and Intervention are Essential

Identification and therapeutic intervention as early as possible in a child’s life are essential. Unfortunately, parents, schools and health care providers in general are unfamiliar with these conditions. We need to raise public awareness and promote understanding in health, social care and educational establishments, and thereby promote a more informed and effective response in terms of speed and appropriateness of referral, assessment and treatment.

When children/adolescents meet the criteria of Gender Dysphoria under DSM-5, they should be referred for assessment and/or treatment in a multi-disciplinary gender identity specialist service that includes the input of child and adolescent mental health professionals.

Management and Therapy of Gender Nonconformity and Gender Dysphoria in Children and Adolescents

The treatment approaches for Gender Dysphoria in children, adolescents, and adults are different, because in children and adolescents, a developmental process (physical, psychological, and sexual) is involved and there is greater fluidity and variability in outcomes, particularly in prepubertal children.

There are four clinical management guidelines that are useful as our references:


The following is a summary of management guidelines extracted from the above references:

Psychological Assessment

A full psychodiagnostic and psychiatric assessment should cover the areas of emotional and behavioural problems, unresolved issues such as losses, peer and other social relationships (including bullies at school), intellectual functioning/school achievement, and comorbidities. Assessment should also include an evaluation of family functioning, in particular, the parental relationships with the child/adolescent. The recognition and non-judgemental acceptance of the gender identity problem, which is not the result of the child’s conscious choice, is important.

Management and Therapy

1. Altering the gender identity per se is not a primary therapeutic objective.

Rather, the primary therapeutic aims should focus on the developmental processes that have negatively affected the child/adolescent.

It is possible that by targeting and improving the developmental processes which may underpin gender development, the gender identity problem itself will be affected in a secondary way and will probably reduce the chance of persistence of gender dysphoria into adulthood. These could be achieved through various psychotherapeutic interventions ranging from individual to family and group therapy. Social and educational interventions are also useful. It is important that these are well coordinated and integrated in a comprehensive management plan.
Table 2, Primary Therapeutic Aims

<table>
<thead>
<tr>
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<tr>
<td>To foster recognition and non-judgemental acceptance of the gender identity problem</td>
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<tr>
<td>To ameliorate associated emotional, behavioural and relationship difficulties</td>
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<tr>
<td>To break the cycle of secrecy</td>
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<td>To stimulate interest and curiosity by exploring the impediments to them</td>
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<tr>
<td>To encourage exploration of mind-body relationships by promoting close collaboration among professionals with a different focus in their work, including a paediatric endocrinologist</td>
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<td>To allow mourning processes to occur</td>
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<td>To enable the capacity for symbol formation and symbolic thinking</td>
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<td>To promote separation and differentiation</td>
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<tr>
<td>To enable the child or adolescent and the family to tolerate uncertainty in the area of gender identity development</td>
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<td>To sustain hope</td>
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<tr>
<td>To improve the patient’s quality of life</td>
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<tr>
<td>To maximise function in daily life to the best of their ability</td>
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(NHS Standard Contract for Gender Identity Development Service for Children and Adolescents)

It is difficult to decide the extent to which parents allow the child/adolescent to assume a gender role congruous to his or her sense of gender identity. This includes problems of whether to inform others of the child/adolescent’s disorder and how others (e.g., schools) should respond to the child/adolescent (for example, if the child/adolescent wishes to attend school using the clothing and name of the other sex). Network meetings involving parents, health professionals and school representatives can be very useful in finding appropriate solutions to these problems.

Recent treatment strategies based upon uncontrolled case series have been described that focus on parent guidance and peer group interaction. One seeks to hasten desistence of gender discordance in boys through eclectic interventions such as behavioural and milieu techniques, parent guidance and school consultation aimed at encouraging positive relationships with father and male peers, gender-typical skills, and increased maternal support for male role-taking and independence. Another approach encourages tolerance of gender discordance, while setting limits on expression of gender-discordant behaviour that may place the child at risk for peer or community harassment. However, the efficacy of these approaches is unclear because of a lack of control groups.

2. An evaluation of group work with parents of children and adolescents with GID showed that parents found this to be helpful and beneficial. The main aims of the group were to promote an understanding of gender identity issues and to find ways for the parents to support each other and deal with uncertainties regarding the final outcome of gender identity development.

3. Social transition in early childhood is a controversial issue, and divergent views are held by health professionals. The current evidence base is insufficient to predict the long-term outcomes of gender identity and role transition during early childhood. Mental health professionals should provide information and help parents to weigh the potential benefits and risks of particular choices. Relevant in this respect are the previously described relatively low persistence rates of childhood gender dysphoria, and a qualitative study on 25 adolescents (with childhood GID) that reported two adolescent girls who found it very difficult to change back to the original gender role and identity as girls after their gender dysphoria resolved during elementary school years. The fear of being teased and the shame to admit they were “wrong” with the first social transition resulted in much distress and caused a postponement of their decision for second social transition till high school.

4. Physical interventions

This should be addressed in the context of adolescent development. Because of the possibility of change of outcome in gender identity and the unknown long term effect of early physical and hormonal treatments, physical interventions should be delayed as long as it is clinically appropriate.

The decision to move to physical interventions should be made, whenever possible, within the context of a multi-disciplinary specialist service including a child and adolescent psychiatrist, a paediatric endocrinologist and other child and adolescent mental health professionals.

Broadly, physical interventions fall into three groups which should be introduced in stages:

1. Fully reversible interventions. These involve the use of GnRH analogues to suppress oestrogen or testosterone production and consequently delay the physical changes of puberty. Alternative treatment options include progestins (most commonly medroxyprogesterone) or other medications (such as spironolactone) that decrease the effects of androgens secreted by the testicles of adolescents. Continuous oral contraceptives (or depot medroxyprogesterone) may be used to suppress menses. Health professionals should closely monitor the possible negative physical side effects of GnRH analog use (e.g. on bone development and height).

2. Partially reversible interventions. These include hormone therapy to masculinise or feminise the body. Some hormone-induced changes may need reconstructive surgery to reverse the effect (e.g. gynaeomastia caused by oestrogens), while other changes are not reversible (e.g. deepening of the voice caused by testosterone).

3. Irreversible interventions. These are surgical procedures.

Moving from one stage to another should not occur until there has been adequate time for the young person to fully assimilate the effects of intervention to date. Surgical procedures that are irreversible should not be carried out prior to adulthood at age 18. As adulthood is reached, a smooth transition to the adult service team should be ensured.

Conclusion

Recently, the Hospital Authority has planned to improve their services for gender dysphoric adults and transsexuals by re-centralisation of their services, and establishment of multi-disciplinary gender identity service teams in the Prince of Wales Hospital and Ruttonjee Hospital. Yet we should not forget an
even larger population of gender nonconforming and dysphoric children and adolescents and their families, who are desperately in need of care. I do hope that similar services could be extended to them as soon as possible. For the sake of early identification and interventions, it is also essential to raise public awareness and promote understanding in various health, social care and educational establishments. I think we all agree that prevention is better than cure and early intervention is always more cost effective than treatment in later life.

Lastly, more research in gender identity development and dysphoria is necessary. In order to improve our clinical management, we need to identify the outcome predictors, including genetic or environmental factors, of childhood gender nonconformity and dysphoria, and design prospective controlled studies on the effectiveness of early and specific therapeutic interventions that are beneficial to the affected children, adolescents and their families.

References

17. Ibid
Disorders of Sexual Preference

Prof Man-lun NG

Definition and diagnosis:

A clinical diagnosis of Disorders of Sexual Preference (DSP) or paraphilic disorder can be made by referring to either the International Classification of Diseases (ICD-10) or the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

The disorders are related to but not the same as sexual preferences or paraphilia which refer generally to uncommon or atypical sexual interests. To differentiate between the two, DSM-5 requires for diagnosis that the person with the intense uncommon sexually arousing interests, fantasies, sexual urges, or behaviours must exhibit the following characteristics:

1. feels personal distress about the interest, not merely distress resulting from society’s disapproval; or
2. has a sexual desire or behaviour that involves another person’s psychological distress, injury, or death, or a desire for sexual behaviours involving unwilling persons or persons unable to give legal consent.
3. the condition has been present for at least six months and
4. the condition has been causing clinically important distress, impairing work, or causing problems with social or personal functioning.

Based on the type of sexual preference or paraphilia, there can be many types of DSP. In DSM-5, the diagnoses provided are: 302.2 Paedophiliac Disorder (Sexual preference for prepubescent children), 302.3 Transvestic Fetishism Disorder (Arousal from clothing associated with members of the opposite sex), 302.4 Exhibitionistic Disorder (Exposing one’s genitals to an unsuspecting person, or performing sexual acts that can be watched by others), 302.81 Fetishistic Disorder (Use of inanimate objects to gain sexual excitement), 302.82 Voyeuristic Disorder (Urges to observe an unsuspecting person who is naked, undressing or engaging in sexual activities, or in activities deemed to be of a private nature), 302.83 Sexual Masochism Disorder (Wanting to be humiliated, beaten, bound or otherwise made to suffer for sexual pleasure), 302.84 Sexual Sadism Disorder (In which pain or humiliation of a person is sexually pleasing), 302.89 Frotteuristic Disorder (Touching or rubbing against a non-consenting person), 302.89 Other Specified Paraphilic Disorder, and 302.9 Unspecified Paraphilic disorder.

In ICD-10, the diagnoses provided are: F65.0 Fetishism, F65.1 Fetishistic transvestism, F65.2 Exhibitionism, F65.3 Voyeurism, F65.4 Paedophilia, F65.5 Sadomasochism, F65.6 Multiple disorders of sexual preference, F65.8 Other disorders of sexual preference, and F65.9 Disorder of sexual preference, unspecified.

Aetiology

Paraphilia may exist as discrete anomalies in otherwise stable personalities and thus may go unnoticed by other people. More commonly, however, persons with personality disorders who have problems with self-esteem, anger management concerns, difficulty delaying gratification, poor empathetic ability, and faulty cognitions are particularly vulnerable.

There are many theories regarding the aetiology of PSD, but none has proved conclusive.

Psychoanalytical theory

Freud ascribed PSDs to the fixation or regression of one’s psychosexual development due to severe psychological trauma in the infantile stages, particularly the oedipal. The object relations school emphasised psychological traumas in real relationships with caregivers causing subsequent problems in the ability to establish and maintain healthy intimate relationships. The individual is therefore motivated to satisfy sexual urges through non-relational means (e.g. by reliance on a fetish object) or pseudo-relationships (e.g. exhibitionism, voyeurism, or frotteurism), or relationships with partners that are based on disproportionate power (e.g. sexual masochism). Freund and his colleagues on the other hand suggested that some PSDs may be due to distortion of one’s courtship phases on reaching sexual maturity.

Behavioural theory

The behavioural theory attributes the development of certain PSDs to the process of conditioning, particularly accidental conditioning. If nonsexual objects are frequently and repeatedly associated with a pleasurable sexual activity, then the object becomes sexually arousing.

Yet, negative reinforcement may also play a role. If an individual experiences unpleasant consequences with normal sexual activity, an aversion to normal sex may occur, resulting in the development of DSP.

Certain dangerous sexual activities (practically or legally) such as exhibitionism, voyeurism, paedophilic
assaults or exhibitionism may be driven by the risk involved. To some people, the constant threat of discovery may be as arousing as the sexual arousal itself.

Abnormal conditioning could occur more easily in people with low self-esteem, who have difficulty forming person-to-person sexual relationships.

Social Learning Theory
Seligman & Hardenburg suggested that an offender has somehow learned the paraphilia from his or her environment. The learning can come from a process of operant conditioning, drive reduction or "modelling".

Biologic theories
(1) Neuropsychological theory: Damage to some parts of the brain (e.g. temporal lobe) has been found to be associated with the motivation for paraphilia. It is suggested that a brain abnormality, inborn or in daily life, might reduce the individual’s control over paraphilic impulses.

(2) The Monoamine theory
Monoamines act as neuromodulators mediating attention, learning, physiological function, affective states, goal motivated and motor behaviour, as well as appetitive states such as sleep, sex, thirst and appetite. One type of monoamine, dopamine contributes to the experiences of reward and therefore facilitates approaches or sensation seeking behaviours. Another type of monoamine, serotonin contributes to biological inhibition of such behaviours.

Kafka suggested that one’s sexual motivation system and hence sensation seeking behaviour can be influenced by the activity levels of these monoamines, so that any imbalance in the quality, or concentration, or the receptors of these monoamines could be the cause for paraphilia andDSPs. Furthermore, testosterone, which inhibits the breakdown of dopamine, is found to increase sensation seeking. This offers an explanation to male predominance in these disorders.

Sociobiologic theory
This theory combines the Dawkins’ theory of gene transmission and Darwin’s theory of survival of the fittest. Dawkins suggested that different paraphilia may be responsible for enhancing society’s level of sexual excitement which in turn, would increase the likelihood of sex acts that ultimately lead to procreation. If that is the case, based on Darwin’s theory of evolution, paraphilia has its survival value which takes it through generations of human development up to the present.

Epidemiology
Paraphilia are rarely diagnosed in clinical settings, possibly in part, because many of the acts are illegal or shameful. Paedophilia, voyeurism, and exhibitionism are the most commonly observed paraphilia in sex clinics. Sexual masochism and sadism are much less common. About 50% of patients observed in clinics for treatment of paraphilia are married.

According to DSM-5, the frequency of voyeuristic disorders is unknown, but the highest possible prevalence in males is 2-4%, less certain in females but is generally believed to be much lower.

Frotteuristic disorders, including uninvited sexual touching of or rubbing against another individual, may occur in as many as 30% of adult males in the general population; 10-14% of adult males seen in the outpatient setting for paraphilic disorder and hypersexuality meet the diagnostic criteria.

The frequency of paedophilic disorders is unknown. The highest possible prevalence among males is estimated to be 3-5%; the prevalence in females is thought to be much lower.

Most patients with paraphilic disorders are aged 15-25 years. They rarely occur in individuals older than 50 years. Males are more likely to be affected than females at a rate of about 30 to 1.

Clinical Assessment

Before the actual assessment interview, a clinician should review relevant legal/criminal records if available. Collateral information should also be sought from witnesses, victims, relatives or friends.

Take a complete history including psychiatric and psychosexual history, with the aim not only to reach a diagnosis, but also to determine the causes, evaluate risks to self and others and detect co-morbidities (including any associated paraphilia). Particular attention should be paid to:

(1) Self-report on psychosexual development
(2) Specific sexual ideas, fantasies and behaviours which lead to the current consultation
(3) Past records of any psychological or psychophysiological assessment.

People with paraphilic disorders may be difficult to interview because of guilt and reluctance to share information openly with the interviewer. It is essential to establish rapport with these patients to allow them to talk more freely about their disorder. Start with more routine history before going gradually into the more personal and sexual areas.

Investigations

Complete mental status, physical, and neurologic examinations must be performed to assist with the evaluation and to rule out medical or psychiatric illnesses.

Paraphilic disorders must be distinguished from non-pathologic use of sexual fantasies, behaviours, or objects as stimuli for sexual excitement. Investigations that may be helpful are: standard medical workup (including sequential multiple analysis, complete blood count, rapid plasma reagent, thyroid-stimulating hormone level or thyroid function test), HIV screen, hepatitis panel, unscheduled DNA synthesis, computed tomography (CT), magnetic resonance imaging (MRI), penile strain gauge, Abel assessment for interest in paraphilia, phallometric testing, electroencephalography (EEG).
Management\textsuperscript{14, 15}

The level of severity, distress, and impairment (up to and including criminal behaviour) resulting from these disorders are highly variable. Treatment must take into account the specific needs of each case. The first consideration should be the need for hospitalisation.

Many treatments can be given on the outpatient basis including different forms of psychotherapy, as well as pharmacotherapy. Hospitalisation is indicated for patients who are suicidal, homicidal, or unable to take care of themselves. Suicide risk is high if they feel exposed or confronted. If patients are charged with a crime or have been arrested, they may require incarceration.

Always be aware of the possible need for consultations with other professionals, such as a neurologist, a psychologist, an attorney, or even a member of the clergy.

Psychotherapeutic Interventions

(1) Cognitive-behavioural therapy

It involves applying behavioural therapy techniques to modify sexual interests by altering the patients’ distorted thinking patterns and making them cognisant of the irrational justifications that lead to their undesirable sexual behaviours. It may be applied in a stepwise approach: i) Confrontation of cognitive distortions; ii) Promoting victim empathy; iii) Assertiveness training, including social skills training, time management, and structuring; iv) Relapse prevention, by identifying antecedents to the behaviour (high-risk situations) and ways of disrupting them; v) Surveillance systems, through family associates who help monitor the patient’s behaviour. vi) Lifelong maintenance.

(2) Aversive conditioning:

The technique of covert sensitisation pairs a patient’s harmful sexual variation with an unpleasant stimulus (e.g. medication or masturbatory satiation) in order to discourage repetition of the act.

(3) Orgasmic reconditioning

First, the patient is instructed to masturbate to his or her typical, less socially acceptable stimulus. Then, just before orgasm, the patient is told to concentrate on a more acceptable fantasy. This process is repeated at progressively earlier points before orgasm until, eventually, the patient begins his or her masturbation fantasies with an appropriate stimulus.

(4) Social skills training

Because of the widespread view that paraphilic disorders develop in patients who lack the ability to cultivate relationships, social skills training is applied. The training may work on such issues as developing intimacy, carrying on conversations with others, and assertive skills training. Many social skills training groups also teach basic sexual education.

(5) Self-help control groups:

Patients with paraphilia may be referred to self-help control groups such as the 12-step programmes designed for “sexual addicts”. Like Alcoholics Anonymous, these programmes are designed to give control to group members, who lead most of the sessions. To increase awareness of the problem, the programmes incorporate cognitive restructuring with social support, also focus on the sense of a “higher power” and each individual’s reliance upon his or her spirituality.

(6) Group therapy

Group therapy in this setting is designed to help paraphilic individuals break through the denial they so commonly exhibit by surrounding them with other patients who share their condition. Once these individuals begin to admit that they have a sexual divergence, the therapist can begin to address individual issues, for example past sexual abuse that may have led to the sexual disorder.

When these individual issues have been identified, initiation of gestalt-type therapy (with the victim, if any) may be desirable to help patients work through their guilt and shame associated with their paraphilia. The goal of therapy is to lead the patients to a “healthy remorse”.

(7) Individual expressive-supportive psychotherapy

With a psychologically minded patient who is willing to focus on the paraphilia, the therapist does not set unrealistically high goals but concentrates on breaking through the patient’s denial. After that, the unconscious meaning behind the particular paraphilia is worked on. In this form of therapy, the patient’s countertransference and avoidance can be particular problems.

Pharmacologic Therapy

Pharmacologic interventions may be used to suppress sexual need or behaviour. However, numerous adverse effects have been reported. Ethical, medical, and legal questions have also been raised regarding issues of informed consent, especially in hospital and prison settings.

Medications that may be considered in the treatment of DSP include:

(1) Antidepressants, including lithium and various selective serotonin reuptake inhibitors (SSRIs). SSRIs are most useful for treating associated compulsive sexual disorders, to induce libido-lowering sexual side effects, or both. The dosages used are higher than those typically administered for depression.

(2) Long-acting gonadotropin-releasing hormones (i.e. medical castration), such as leuprolide acetate and triptorelin.

(3) Antiandrogens to lower sex drive, such as medroxyprogesterone acetate

(4) Phentothiazines, such as fluphenazine

(5) Mood stabilisers, such as lithium, anticonvulsants and atypical antipsychotics.

Surgical Interventions

Psychosurgery using stereotoxic tractotomy and limbic leucotomy may be performed. Bilateral orchidectomy (surgical castration) has also been used in some places to remove sexual desires in the subject. These are invasive, irreversible procedures that could be applied only to a small number of subjects who are treatment resistant sex offenders or have serious paedophilia, hypersosexuality or exhibitionism. Given their emotional, physical, and intellectual adverse effects, as well as the availability of reversible, suitable pharmacologic interventions, these surgical means should not be widely applied.
Long-Term Monitoring
Many patients require long-term medication and psychotherapy. As a rule, the medication taken in the hospital should be continued after discharge and adjusted as necessary. Change or stopping of medication should be discussed with the patient for informed consent.

If patients are gravely disabled and represent a danger to themselves or to others, their daily activity may require close restriction and monitoring assisted by the law and wireless position tracking devices.

Prognosis
The morbidity or mortality of a paraphilia depends on the act practised, the comorbidity involved, the patient’s cooperation with the therapist, and whether or not the criminal law is involved.

Paraphilia can be transient, as experimentation during the teenage years, or can remain a life-long problem involving legal, financial, interpersonal, occupational, academic, and other problems. Death may occur in some circumstances, through acts such as autoerotic asphyxiation. Treatment and prognosis must be based on individual assessment.

Good prognostic signs are cooperative attitude, normal sex life, motivated outlook, with a desire to change, and voluntary approach to treatment.

Unfavourable prognostic signs are early onset of paraphilia, legal charges pending, unmotivated attitude, and lack of remorse over the acts.

References
A patient with lymphoma presented with upper abdominal pain and vomiting

Dr Alan CS Lam
MBBS, FRCR
Department of Radiology, Queen Mary Hospital, Hong Kong

Dr Wendy WM Lam
MBBS, FRCR, FHKAM (Radiology)
Department of Radiology, Queen Mary Hospital, Hong Kong

Patient History:
A 27 year old lady with Hodgkin lymphoma on chemotherapy presented with upper abdominal pain and vomiting. Urgent contrast CT abdomen was performed.

Questions:
1. What are the CT findings?
2. What is the most likely diagnosis?
3. Discussion.

(See P.37 for answers)
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Refurbishment: May 2014

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Balcony | HKD33,527 | USD750
Princess Grill | Sold Out
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Travel to Sri Lanka

Dr Yin-kwok NG

Chief of Service and Consultant Psychiatrist
Kwai Chung Hospital

Sri Lanka, also known as the Pearl on the Indian Ocean, was devastated by her 30 years’ civil war, which ended in 2009. Since then it has been rebuilding herself. Lonely Planet listed it the country to visit in 2013. We went the same year. Here are some of the highlights.

The Sigiriya Rock Fortress, a UNESCO listed World Heritage Site, is home to the 5th Century “Fortress in the Sky” which is perhaps the most fantastic single wonder of the Island. It is also known as the Lion Rock because of the huge lion that used to stand at the entrance to the fortress. Within its triple-moated defence the huge rock rises almost to a sheer height of 200M. On its summit are the foundations of what was once a great and sumptuous palace and gardens complete with a swimming pool. On one of the stairways the only known ancient work of Sinhala secular painting survived in the form of frescoes of life-sized damsels in all the freshness and delicacy of their original colour.

*Nuwara Eliya - the ‘Little England’ of Sri Lanka, is set against beautiful backdrops of mountains, valleys, waterfalls and tea plantations. It is supposed to be one of the coldest places on the island, but is really just like an England spring day although the temperature does drop at night. All around Nuwara Eliya you will see evidence of the British influence. Houses are like country cottages or Queen Ann style mansions.

The Yala (Ruhuna) National Park covers 126,786 hectares. It is famous for its big herds and large number of elephants, leopards, deer, crocodiles, mongooses, wild boars, wild buffaloes, peacocks and many other animals.
Sri Lanka’s most historically interesting town is Galle. It was a major port until about 100 years ago, but today still handles shipping and sailing boats in the natural harbour. You can stroll around the lighthouse and harbour or visit the old town where you can see the traditional lace makers and wood carvers and purchase some the finest souvenirs. The 2004 tsunami killed thousands in the city when water rushed in for hundreds of metres from the sea.

Colombo, the capital, is conspicuous with Chinese investments. The highways, the new convention centre, the airport being improved and the container port are all being financed from China.

Other interesting highlights include elephant orphanage, turtle hatch, whale watching, botanical garden, Temple of the Sacred Tooth Relic and many more. Many of the bigger tour operators in Hong Kong have similar private tours which include return air passage, airport pick up and return, hotel accommodation of different grades, all meals and entrance fees, in our case a Toyota Prius with a driver who speaks English and doubles up as the guide. We did not change into any Sri Lankan money. Some US notes would do for drinks and tips.

Before we went we worried about the hygiene, since the country is so close to India. We found that it is a lot better than India, more on par with Thailand. The rivers and the seaside looked particularly spotless. Go there before it becomes too popular and before it becomes “globalised” and loses its unique identity and image. The best time to go is September when the temperature is not that high and it is relatively dry.
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- **Ca bladder or Ca prostate**
- **HKMA Kowloon West Community Network - Emerging Role of DPP4i and TZD Combination in the Management of T2DM**
- **HKMA Officers’ Meeting**
- **HKMA Council Meeting**
- **HKMA Hong Kong East Community Network - Sarcopenia in Elderly**
- **HKMA Central, Western & Southern Community Network - Reference Framework for Preventive Care for Older Adults in Primary Care Settings**
- **HKMA Hong Kong East Community Network - Role of GSIN in the Management of Prediabetes and Diabetes**
- **HKMA Structured CME Programme with HKS&H Session 2: Joint Replacement with Robot**
- **FMSHK Executive Committee Meeting**
- **FMSHK Council Meeting**
- **HKMA Kowloon West Community Network - HPV Vaccination - The Urologist’s Perspective**
- **HKMA Yau Tsim Mong Community Network - Optimizing Glycemic Control to Improve Renal Outcomes: Findings from ADVANCE-ON**
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- **HKMA Kowloon West Community Network - Emerging Role of DPP4i and TZD Combination in the Management of T2DM**
- **HKMA Officers’ Meeting**
- **HKMA Council Meeting**
- **Refresher Course for Health Care Providers 2014/2015 - Gynaecology update for primary care**
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<th>Date  / Time</th>
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| 2 MON 7:30 pm | Ca bladder or Ca prostate  
Organiser: Hong Kong Urological Association; Chairman: Dr Chan Ning Hong, PYNEH; Speaker: Dr Eric Li, PYNEH; Venue: Multi-disciplinary Simulation and Skills Centre, 4/F, Block F, QEIH | Ms Tammy Hung  
Tel: 96096064  
Fax: 83445115  
1 CME Point |
| 3 TUE 1:00 pm | HKMA Kowloon West Community Network - Emerging Role of DPP4i and TZD Combination in the Management of T2DM  
Organiser: HKMA Kowloon West Community Network: Chairman: Dr. LEUNG Kin Nin, Kenneth; Speaker: Dr. TSANG Man Wo; Venue: Crystal Room I-III, 30/F, Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, NT | Miss Hana YEUNG  
Tel: 2527 8285  
1 CME Point |
| 10 TUE 1:00 pm | HKMA Kowloon West Community Network - HPV Vaccination - The Urologist's Perspective  
Organiser: HKMA Kowloon West Community Network; Chairman: Dr. CHAN Ching Fong; Speaker: Dr. YIP Wai Chin, Andrew; Venue: Crystal Room F-I, 30/F, Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, NT | Miss Hana YEUNG  
Tel: 2527 8285  
1 CME Point |
| 11 WED 1:00 pm | HKMA Central, Western & Southern Community Network - Reference Framework for Preventive Care for Older Adults in Primary Care Settings  
Organisers: HKMA Central, Western & Southern Community Network & Primary Care Office of the Department of Health; Chairman: Dr. LAW Yim Kwai; Speaker: Prof. LAM Tai Fong; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F, Chinese Club Building, 21-2 Connaught Road Central, Hong Kong | Miss Hana YEUNG  
Tel: 2527 8285  
1 CME Point |
| 12 THU 1:00 pm | HKMA Hong Kong East Community Network - Role of GTSN in the Management of Prediabetes and Diabetes  
Organiser: HKMA Hong Kong East Community Network; Chairman: Dr. YIP Yuk Pang, Kenneth; Speaker: Dr. TSANG Man Wo; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong | Ms. Candice TONG  
Tel: 2527 8285  
1 CME Point |
| 14 SAT 2:15 pm | Refresher Course for Health Care Providers 2014/2015- Gynaecology update for primary care  
Organisers: Hong Kong Medical Association & HK College of Family Physicians & HA - Our Lady of Maryknoll Hospital; Speaker: Dr. CHAN Kit Sheung; Venue: Training Room II, 1/F, OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon | Ms. Clara Tsang  
Tel: 2354 2440  
2 CME Points |

Certificate Course for health care workers working with patients suffering from advanced life-limiting diseases including cancer and non-cancer diseases  
- **Course No. C261**  
- **CME/CNE Course**

### Palliative Medicine for Health Care Workers

- **Date**: 4, 11, 18, 25 March and 1, 8 April 2015 (Every Wednesday)  
- **Time**: 7:00 p.m.  ~  8:30 p.m.  
- **Venue**: Lecture Hall, 4/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong  
- **Language Media**: Cantonese (Supplemented with English)  
- **Course Fee**: HK$750 (6 sessions)  
- **Certificate**: Awarded to participants with a minimum attendance of 70%  
- **Enquiry**: The Secretariat of The Federation of Medical Societies of Hong Kong  
  Tel.: 2527 8898  
  Fax: 2865 0345  
  Email: info@fmshk.org  

Jointly organised by  
- The Federation of Medical Societies of Hong Kong  
- Hong Kong Society of Palliative Medicine
Annual Dinner 2014

On 31 December 2014, the Federation of Medical Societies of Hong Kong held our Annual Dinner at the Sir Run Run Shaw Hall of the Hong Kong Academy of Medicine as per the good tradition, to celebrate the New Year’s Eve together with our members, friends and families. The Dinner event was absolutely another success exemplified by the Federation spirit, with support from our member societies and partners from the medical & health care professions.

With the theme “Federation Night Fever”, the programme and venue were designed to match a joyous dancing & singing atmosphere. Our President Dr Raymond LO delivered the welcome speech at an elegant opening ceremony, to launch the evening of celebration and entertainment. We were privileged to have many distinguished guests joining us, including the Chief Executive and Patron of the Federation, The Honourable Mr Chun-ying LEUNG; Secretary for Food and Health, Dr Wing-man KO; Under Secretary for Food and Health, Prof Sophia CHAN; President of the Academy of Medicine, Dr Donald LI; Pro-Vice-Chancellor of The Chinese University of Hong Kong, Prof Tai-fai FOK; Chairman of the Hospital Authority, Dr Che-yan LEONG; The Hon Dr Ka-lau LEUNG, The Prof Hon Joseph LEE and Prof Diana LEE; The Hon Dr Che-hung LEONG and Dr Lillian LEONG, Dr York CHOW, Prof Gabriel LEUNG and together with past president of FMSHK Dr Dawson FONG.

With the performing artists Ms Sharon CHAN, Ms Suzan GUTERRES and young violinists from the Takako Nishizaki Violin Studio, the dinner was indeed a star-studded event with excellent entertainment. We were also delighted to have superb performances delivered by Dr York CHOW. To match with the theme, we established three competitions: King and Queen of Karaoke, Bling Bling Costume Prize & Fever Dance Award. We appreciated all the participations from the contestants & congratulated the winners.

This year, we had many fabulous prizes which were worth up to $200,000, including the Luxury raffle prize for Uniworld River Cruise Enchanting Danube Package from Jebsen Travel; Premier raffle prize for AMOREPACIFIC Spa in Seoul with Two Round Trip Business Class Tickets to Seoul; Grand raffle prize New Ship Regal Princess Seven Days Vibrant Eastern Caribbean Cruise Vacation for Two, Sulwhasso Skincare Set, Costa Victoria Cruise Package for Two from Westminster Travel, a pair of round trip air tickets from Cathay Pacific, Air Defenders from AQ-bio etc.

All our guests had a fabulous evening with the exciting magic show, gaming tables, photo exhibition, art exhibition from Art of Nature, silent auction of calligraphies for charity, portrait shooting, instant fun photo taking, bingo game, song dedication and the climax of the night – countdown to the New Year 2015.

We would like to express our sincere gratitude to all our sponsors, and thank all our guests for joining us on this memorable occasion. The year 2015 will be special for the Federation, as it marks the 50th anniversary. We look forward to celebrate this important moment with all our colleagues and friends with a Gala Dinner on 15 March 2015.
Answers to Radiology Quiz

1. CT Findings:
- Grossly distended and fluid filled stomach and proximal duodenum with tapered but acute narrowing of the 3rd part of duodenum as it passes between the SMA and vertebral column. The duodenum and jejunum are collapsed distally. There is reduction in the aortomesenteric angle (17 degrees) and aortomesenteric distance (8mm).

2. Diagnosis:
- Superior mesenteric artery syndrome causing duodenal obstruction.
- OGD was performed with contrast injection confirming the obstruction with linear compression defect at the 3rd part of duodenum overlying the spine. A feeding tube was inserted across the narrowing to the DJ flexure to relieve the obstruction.

3. Discussion:
- Superior mesenteric artery (SMA) syndrome is also known as the Wilkie syndrome, a rare disease in which acute angulation of the SMA results in compression of the 3rd part of duodenum within the aortomesenteric compartment leading to obstruction.
- It is more common in older children and adolescents, with female predominance.
- Causes include:
  - Severe weight loss (as in our case related to malignancy)
  - Congenital
  - Visceroptosis due to loss of abdominal muscle tone
  - Exaggerated lumbar lordosis
  - Prolonged bed rest in the supine position
  - Application of body cast
- Radiologic features:
  - Megaduodenum and grossly dilated stomach
  - Fluid or gas filled
  - Linear extrinsic compression of the 3rd part of duodenum
  - Collapsed small bowel distal to the crossing of SMA
  - Narrowing of the aortomesenteric angle in sagittal CT/ MR angiography
  - Normal value – 45-65 degrees
  - SMA syndrome – 10-22 degrees
  - Reduced aortomesenteric distance
  - Normal value – 10-28mm
  - SMA syndrome – 2-8mm
  - Relief of compression by postural change into the prone knee-elbow position
- Treatment
  - Conservative
  - Nasogastric decompression and hyperalimentation
  - Followed by oral feeding with frequent small meals
  - Surgery
  - Duodenoojunostomy if conservative treatment fails

Dr Alan CS LAM
MBBS, FRCR
Department of Radiology, Queen Mary Hospital, Hong Kong

Dr Wendy WM LAM
MBBS, FRCR, FHKAM (Radiology)
Department of Radiology, Queen Mary Hospital, Hong Kong
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Product information is available upon request

1. IMS Health 2011
2. HKAPI data 2013
3. Data on file