

The Treatment of Erectile Dysfunction by Acupuncture

Abstract

Erectile dysfunction, defined as "the inability to develop and maintain an erection for satisfactory sexual intercourse or activity", is thought to affect up to half of all men to varying degrees. Erectile dysfunction is often the first sign of an underlying disease, usually cardiovascular or diabetes, and it is recommended that all men over the age of 25 be asked about their erectile function and referred onwards in case of problems. Erectile dysfunction is associated with depression and low levels of self-esteem, both of which have been shown to improve with amelioration of the condition. From the Chinese medicine perspective, the presence of erectile dysfunction can reveal deficiency and disharmony of the zangfu and the presence of pathogenic factors. Acupuncture offers potential in the treatment of erectile dysfunction, especially in men unwilling to take medication, or for whom such medication is not effective or has untoward side-effects. Furthermore, acupuncture is qualitatively different from medication in that it seeks to modify the root of the disorder rather than simply treat the manifestation.

By: Peter Deadman

Keywords: Erectile dysfunction, acupuncture, impotence.

Prevalence of erectile dysfunction

Erectile dysfunction affects over half of all men to varying degrees. The Massachusetts Male Aging Study estimated the prevalence of all degrees of impotence at 52% (minimal at 17.2%, moderate at 25.5%, and complete at 9.6%).¹ While its incidence is clearly age-related (rising steadily over the age of 40 and reaching levels of 66% in the over-70s), some studies indicate that around one fifth of men under 40 years of age nevertheless suffer from some degree of erectile dysfunction. Screening of 5836 men aged between 25-50 years by the Medical Services of the Israeli Defence Force, who all completed an SHIM (Sexual Human Inventory for Males) questionnaire, found that 26.9% suffered from erectile dysfunction (19% mild, 7% moderate, 1% severe), with 22.1% of males under 40 also having low SHIM scores.²

Psychogenic causes of erectile dysfunction

Whilst it was previously thought that the majority of erectile dysfunction was psychogenic in origin, it is now accepted that at least 70% of erectile dysfunction has organic causes. The ratio of psychogenic to organic erectile dysfunction changes with age, with psychogenic causes predominating in younger men (accounting for 70% of cases in the under 35s) and organic causes prevalent in older men (accounting for 85% in the over 50s).³

Psychogenic causes are subdivided into categories such as anxiety, depression, relationship problems and obsessive-compulsive disorders.

- Anxiety may reflect fear of sexual failure (especially after a previous experience of erectile dysfunction or with a new partner), problems with gender identity, fear of pregnancy, 'widower's guilt' (sexual guilt after

the death of a spouse), poor body image, low self-esteem and religious guilt.

- Over half of men with erectile dysfunction suffer from depression⁴, with the degree of depression directly linked to the severity of the erectile dysfunction.⁵ However there is evidence that rates of depression drop significantly when erectile dysfunction is effectively treated.⁶ Erectile dysfunction is also associated with low self-esteem, low confidence and low relationship satisfaction, all of which, like depression, are likely to improve with successful treatment of the condition.⁷
- One of the key signs of psychogenic erectile dysfunction is that although a man may be unable to achieve an erection in a sexual setting or during masturbation, he will still experience night-time erections. Most men have three to five full erections during deep (rapid eye movement or REM) sleep, each of 30 minutes. A snap gauge, a simple ring-like device that is placed around the penis at night, can indicate whether erection has occurred during sleep, and more recently the Rigiscan – two rings placed around the penis and connected to a computer box – has been used.

Organic causes of erectile dysfunction

"Most people who have a physical cause for their impotence have a disease entity that is causing the impotence, so you have patients out there with undiagnosed diabetes, vascular problems and heart disease whose first sign of a problem is impotence. In fact, one-third of all patients who present as impotence as their primary symptom of a blood vessel problem will end up with a serious complication within three years, either a heart attack or a stroke".⁸

- A recent study suggested that because the correlation between erectile dysfunction and cardiovascular conditions is so strong, and because erectile dysfunction is often present before any signs of heart disease, diabetes and other vascular diseases, all men over the age of 25 should be asked about erectile dysfunction and assessed for cardiovascular disease if they have symptoms of erectile dysfunction.⁹
- Atherosclerosis is considered to be a causative factor in approximately 40% of erectile dysfunction in men older than 50 years, and is associated with hypertension, lipid problems (cholesterol, triglycerides), diabetes and cigarette smoking.¹⁰
- Erectile dysfunction is also an important symptom of diabetes and may again be the first sign of an undiagnosed condition. Around half of all diabetic men suffer from erectile dysfunction¹¹ and amongst diabetics erectile dysfunction is also an especially important indicator of cardiovascular disease, diabetic men with erectile dysfunction having an eightfold risk of undiagnosed heart disease.¹²
- Erectile dysfunction may also be a presenting symptom in stroke, Parkinson's disease, multiple sclerosis, Alzheimer's disease, sleep apnoea, chronic obstructive pulmonary disease, chronic renal failure, hepatic failure, thyroid disorders, low testosterone and other hormonal disorders and herniated lumbar disc, and may follow pelvic trauma, pelvic surgery or pelvic radiotherapy.
- Many medications including anti-hypertensives, common cold medicines, antidepressants and tranquilisers may also cause erectile dysfunction.

Distinguishing between organic and psychogenic erectile dysfunction

Psychogenic causes of erectile dysfunction tend to manifest with

- sudden onset
- complete immediate loss of erectile function
- the presence of morning erections and/or erections during sleep
- variation according to partner and circumstances

Organic causes of erectile dysfunction tend to manifest with

- gradual onset
- incremental deterioration
- absence of morning erections and/or erections during sleep
- no variation according to partner and circumstances

Diagnosing erectile dysfunction

Many men will not spontaneously initiate discussion of erectile dysfunction during the diagnostic process and it may be necessary to ask specific questions. Open-ended questions like "How would you rate your sex life on a scale from 1 to 10" that elicit an answer below 10, open the way to further questions such as "What would

need to change to rate it as a 10"?¹³ As always, the more comfortable the practitioner is with the discussion, the more relaxed the patient will be. It is worth remembering that back in the 1950s, when discussion of sexual matters was considerably more inhibited than it is nowadays, Alfred Kinsey successfully conducted more than eighteen thousand interviews with men and women about the most detailed and intimate aspects of their sexual life, mainly because of his enthusiasm for the subject, his relaxed approach and his comfortable interviewing technique.

Current medical treatments for erectile dysfunction

There is a wide range of medical treatments for erectile dysfunction but here I only want to consider the new generation of medications, specifically Viagra (sildenafil citrate) Cialis (tadalafil) and Levitra (vardenafil hydrochloride).

Since the arrival of Viagra in March 1998, the number of patients presenting to their GP for erectile dysfunction has doubled in the United States and the appearance of a genuinely effective medication appears to have contributed to the lifting of much of the taboo surrounding erectile dysfunction.¹⁴

In some ways the arrival of these new drugs appears to have gone a long way towards answering the question of how to treat erectile dysfunction. In China for example, where interest in sexual stimulants and tonics has flourished for generations, men appear to be switching their allegiance from traditional Chinese medicines to Viagra for the treatment of erectile dysfunction, although they often remain loyal to traditional Chinese medicine for other health concerns.¹⁵

At first glance, indeed, it might appear that this new class of medicines is so successful that there is no longer a place for treatments such as acupuncture or Chinese herbal medicine.

It is valuable therefore to consider some of the less beneficial aspects of these drugs.

1. Side-effects

All three medicines may give rise to side-effects (to a greater degree in the case of Viagra and Levitra) and common to all three are headaches, facial flushing, dyspepsia, nasal congestion and visual disturbance (blueing of the vision), although in most cases these will not be severe enough to stop men taking them. From the viewpoint of Chinese medicine these all indicate heat in the Liver, and as will be demonstrated below, whilst sexual tonics predominantly act on the Kidneys, sexual stimulants – whose effect is rapid and to which category these three drugs belong – must necessarily both be hot and act on the Liver. At the moment there are also still concerns about the contribution of these drugs to heart-related side-effects and nerve damage in the eyes, even to the extent of blindness. In the

case of heart disease, it is unclear whether the apparent association of such events with use of these drugs is a direct consequence of the drugs or rather the response to unaccustomed physical (sexual) exertion.

2. Effectiveness

Although it is commonly reported that 70-80% of men report satisfaction with these medications, there is a growing counter-opinion that the true rate of effectiveness is as low as one third.¹⁶ There is also some evidence that the effects, at least of Viagra, may wear off after two years.¹⁷

3. Effect on fertility

Recent research shows that Viagra triggers and speeds up the acrosome reaction in sperm, making them release egg-penetrating enzymes (to break down the outer layer of the egg) too early, so they cannot then penetrate the egg when they arrive. This may be a problem when men are trying to father a child and also because Viagra has been used in fertility clinics to increase sperm production and motility (nearly half of UK fertility clinics use Viagra to assist semen production).¹⁸

4. Treat the biao, not the ben

Clearly these medications treat the 'biao' (manifestation) of erectile dysfunction rather than treating the underlying 'ben' (root). As such they are only effective when they are used and do nothing to change the underlying problem. As hot medicines, they also risk damaging yin, and by promoting sexual activity, may contribute to depletion of jing (essence), especially when used by the elderly or as a recreational drug by younger men – often in combination with other recreational drugs.

It should also be noted that there is a debate taking place about the "medicalisation of erectile dysfunction". It is suggested that in the case of older men particularly, erectile dysfunction is a manufactured disease which has been unduly emphasised since the fortuitous arrival of highly profitable medications that can treat it effectively. According to this view, the focus on erectile dysfunction may be excessively phallogocentric, may deny the inevitable changes that occur through the stages of a man's life, and may ignore real relationship difficulties as a factor underlying erectile dysfunction (dissatisfaction rather than dysfunction).

Chinese medicine

From the perspective of Chinese medicine, there are four factors that give rise to and sustain a successful erection and ensure a successful sexual encounter.

Shen

Desire is a manifestation of the shen (spirit). When the shen is in harmony, it can focus upon the penis to create sexual desire.

Yin and blood

An erection is a 'substantial' transformation and is thus brought about by yin. Sufficient yin and blood must therefore flow to the penis to cause it to engorge and harden.

Qi and yang

Qi and yang must flow to the penis to raise it and to generate heat.

Jing

Finally jing (essence) must flow to the penis to bring forth ejaculation.

The zangfu

Kidneys

"At the age of 16, the Kidney qi of a man becomes even more abundant, his sexual function begins to develop, and he is filled with semen that he can ejaculate. When he has sexual intercourse with a woman, she can have children".
*Plain Questions*¹⁹

The Kidneys are the root of sexual development and libido and control the urethra and the testicles, known as the 'wai shen' (external Kidneys).

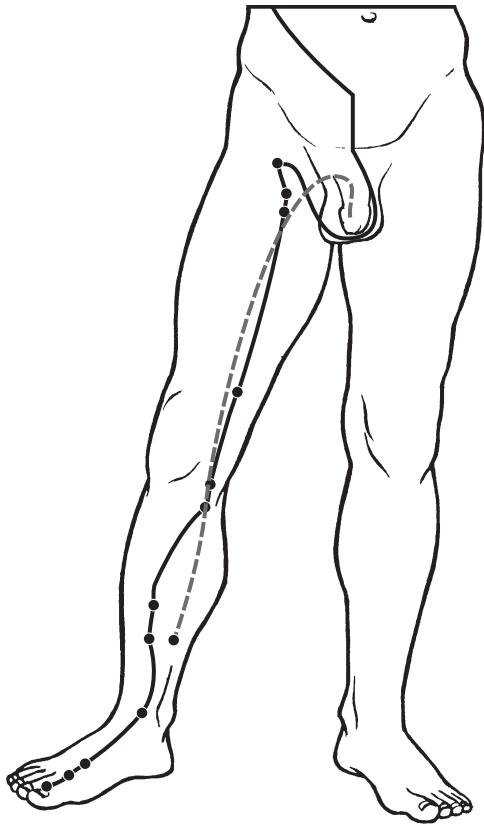
As well as being the foundation of the sexual function, deficiency of different aspects of the Kidneys contribute to erectile dysfunction in specific ways.

- Kidney yang is necessary to warm the bao ('room of sperm') in the lower abdomen. The bao is common to both sexes and in women is known as the 'zi bao' (uterus). Without the heating action of the minister fire, the room of sperm will be cold, resulting in erectile dysfunction associated with loss of libido. Accompanying symptoms may include coldness of the genitals, lack of morning or night-time erection and lower back weakness and aching or any other general clinical manifestations of Kidney yang deficiency

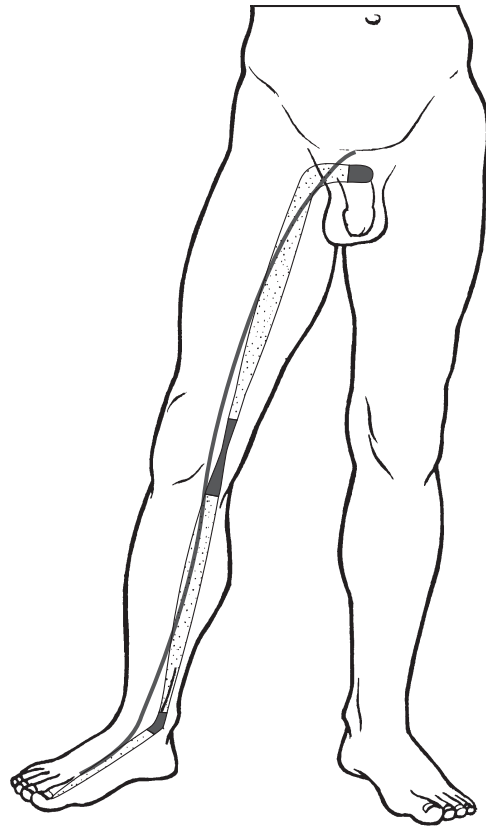
- Kidney yin is the basis of all yin in the body and its deficiency can lead to failure of the penis to fill properly resulting in incomplete erection or an erection that cannot be sustained. It should be noted that the heat resulting from yin deficiency can stimulate the libido, illustrating that erectile dysfunction is not synonymous with low libido. Frequent erection and excessive libido may therefore be a manifestation of Kidney yin deficiency, although due to yin deficiency there may be incomplete erection or difficulty maintaining an erection.

- Note that it is possible to encounter cases of erectile dysfunction where both Kidney yin and Kidney yang are deficient.

- Kidney jing (essence) is composed of pre-heaven (congenital) jing and post-heaven (acquired) jing. Pre-heaven jing is responsible for the development of secondary sexual characteristics and its deficiency may manifest as small testicles, scanty facial hair growth and



The Liver primary and Luo-connecting channels



The Liver divergent and sinew channels

a lifetime disinterest in sex. Deficiency of post-heaven jing, due to old age or dissipation (and according to the Chinese tradition, to excessive ejaculation) may give rise to loss of libido and scanty ejaculate.

- Some degree of Kidney deficiency is very commonly found in erectile dysfunction, whatever other patterns may be present.

Liver and Gall Bladder

The Liver primary channel encircles the external genitalia, the Liver Luo-connecting channel ascends to the genitals, the Liver divergent channel ascends to the pubic region, and the Liver sinew channel binds with all the other sinew channels at the genitals. The penis is called “zong jin” which essentially means “meeting of the ancestral, or one hundred, sinews”.

Liver fire

Although the deep and slow root of sexual fire is the ministerial fire of the Kidneys, the sudden arousal of the zong jin is a manifestation of the fire of the Liver. The passing of the ministerial fire to the Liver, although it can occur intermittently through childhood²⁰, reaches its peak at puberty when a boy may experience almost constant erections. Excessive Liver fire is not normally associated with erectile dysfunction of the kind discussed in this

article, although if Liver fire is excessive in an adult male, he may experience priapism, a persistent, abnormal and painful erection. The pattern of deficiency of Liver fire is not normally discussed in Chinese medicine, although it can be considered to correspond to the pattern of Gall Bladder qi deficiency (below).

Liver deficiency

- Since the penis has to be filled with yin and blood to become engorged, Liver blood or yin deficiency can lead to erectile dysfunction, characterised particularly by inability to maintain an erection.

Liver excess

- Dampness and heat can sink to the lower jiao and impede the smooth flow of qi and blood to the sinews (i.e. penis) and give rise to flaccidity. This is similar to the flaccidity of the muscles seen in wei (flaccidity) syndrome. Damp-heat is a very important pattern in male sexual and genital disorders and may be linked to a history of sexually transmitted and other infections, prostatitis and genital herpes, and symptoms such as genital itching and discharge and scanty dark urine. Its origin may be primarily external (exposure to damp-heat climatic conditions or infective agents) or internal. Internal causes may include the following.

- i. Dietary. This is due to the excessive consumption of rich, greasy and heating foods and drinks, including alcohol, and may be associated with obesity.
 - ii. Liver/Spleen disharmony. If Liver qi stagnates it can both suppress the function of the Spleen and transform into heat. The combination of the dampness that results from a compromised Spleen and the stagnant Liver fire can give rise to damp-heat which sinks down to the lower jiao.
 - iii. Yin deficiency and dampness. The heat that arises from yin deficiency can combine with dampness in the body to form damp-heat.
- Liver qi stagnation can impede the smooth flow of qi and blood to the genitals. Accompanying symptoms include depression, lack of libido and possible pain or distention of the testicles. Since this pattern may be caused by emotional repression, it may be classified as a psychogenic pattern of erectile dysfunction. It may also be due to excessively sedentary habits which do not encourage the free-flow of qi and blood.

Finally, exterior pathogenic cold may attack and penetrate the Liver channel and impede the smooth flow of qi and blood to genitals. This pattern is most commonly caused by exposure to cold water or cold weather conditions.

Gall Bladder

It is said that the primary difference between the Liver and Gall Bladder in relation to the sinews is that whilst the Liver directs blood to them, the Gall Bladder provides the sinews with qi²¹. On a psychological level, a healthy Gall Bladder is associated with courage and decisiveness whilst Gall Bladder deficiency is characterised by timidity and cowardice. Men who suffer from such a deficiency may be sexually anxious and timid and disengaged from their sexuality. It may not be immediately apparent, especially to a man who has had no problems of this kind, but both approaching a woman and initiating sex require courage and decisiveness. Deficiency of the Gall Bladder (also known as Heart and Gall Bladder deficiency) is one of the psychogenic causes of erectile dysfunction and may be accompanied by symptoms such as palpitations, insomnia, anxiety, excessive dreaming, sensitivity to being startled or being easily frightened, and depression.

Gall Bladder deficiency of this kind may have two possible causes. The first, which is harder to treat, is associated with prolonged childhood repression, usually by a cruel, contemptuous, scathing or excessively critical parent, although it may also result from bullying (in some cases even in adulthood). The second, is due to one or more acute shocks and corresponds to post-traumatic stress disorder.

Spleen

The Spleen is responsible for the generation of post-heaven qi and the transformation of food and drink into blood. If

the Spleen is deficient there may be insufficient blood to nourish the Heart, and blood and qi to fill and activate the penis. This pattern which may be caused by excessive mental activity at the expense of bodily awareness and exercise, or by serious or prolonged illness or anxiety, will be accompanied by some general signs of Spleen and Heart deficiency such as pallor, weakness, anxiety (especially concerning sexual performance), insomnia, excessive dreaming, lack of appetite, weak digestion and loose stools.

A secondary consequence of Spleen deficiency is the formation of dampness which may accumulate and sink to the lower jiao and transform into damp-heat or congeal into phlegm. The presence of dampness and phlegm will be indicated by a thick sticky tongue coating, dampness of the genital region, and especially, in the case of phlegm, by obesity.

Heart

“When men get depressed and gloomy due to dissatisfaction with their lives and accomplishments, it may lead to depression and anxiety, and erectile deficiency or weak erection ensues.” *Chen Shiduo*²²

The Heart is not normally associated with erectile dysfunction in Chinese medicine texts. However Mengke Kou (2003) in *The Journal of Chinese Medicine* discussed the important relationship between the Heart and erectile dysfunction as proposed by Chen Shiduo, a famous physician of the Qing dynasty (17th century).²³

“When men engage in sex with women, suddenly they may experience failure of erection. Though they try to invigorate themselves with hundreds of methods, none works. This situation is usually thought of as lassitude of the fire of the life gate”. Chen Shiduo, however, thought that it is actually due to Heart qi deficiency. He said “As soon as Heart fire (the emperor) has been aroused, the Kidney (its minister) will follow.” This means that if Heart fire is sufficient and can descend to combine with the fire of the life gate, then men can “fight” for a long time. On the other hand, he said “if the emperor is too weak, no matter how hard the minister urges the emperor (Heart fire) onwards, the emperor still cannot become aroused”. Thus Chen Shiduo suggested that the treatment of erectile deficiency should be concerned with replenishing the Heart above and the Kidney below to energise both of them.

In other words, the shen is responsible for the feeling of desire without which satisfactory sexual activity can not take place. If the Heart is deficient, or if Heart fire is blocked, no amount of Kidney tonifying will rectify the situation.

The Heart is linked to the lower jiao by the *bao mai* (most commonly referred to in gynaecology as the ‘uterus vessel’) and the Penetrating (Chong) vessel, and it is via these channel connections that Heart fire and Heart blood are both said to descend to the genitals.

Furthermore, as seen in the discussion of the Gall Bladder (above), when erectile dysfunction is due to timidity and anxiety, it may be ascribed to Heart deficiency.

It should be noted, however, that in clinical practice points of the Heart channel are not emphasised in the treatment of erectile dysfunction. Rather points of the Governing vessel, for example Baihui DU-20 and Shenting DU-24, along with Yintang (M-HN-3) are preferred. For a discussion of these points, please refer to treatment (below).

Blood stasis

Blood stasis tends to be a complication of other patterns rather than a distinct pattern in its own right. A whole variety of factors can compromise the smooth flow of blood. These include cold, prolonged qi stagnation, qi deficiency (including the deficiency of old age), prolonged obstruction by dampness, phlegm and/or heat, lack of exercise and excessive sitting, traumatic injury, surgery and invasive medical procedures.

A Chinese study compared two groups of patients diagnosed with Kidney deficiency erectile dysfunction. One group received a herbal prescription to tonify the Kidneys, whilst the other received a prescription which both tonified the Kidneys and improved blood circulation. Their findings were that treatment of Kidney deficiency alone resulted in an overall effective rate of 60.5%, with 13% markedly effective, whereas the additional treatment of blood stasis resulted in an 84.5% total effective rate, with 46.6% judged markedly effective.²⁴

Acupuncture treatment

Like many disorders, erectile dysfunction is commonly treated by selecting from among a number of main points which can be used to treat any of the underlying patterns of disharmony and which have a direct effect on the manifestation of the disorder, and secondary points selected according to the underlying pattern.

Main points suitable for any pattern

Baihui DU-20

Although not classically indicated for male sexual disorders, this point is much used in modern clinical practice for two reasons: i. it raises the yang, in other words it has a lifting, uprising effect, and ii. it benefits the brain and calms the spirit. In clinical practice it is primarily used to treat psychogenic erectile dysfunction.

Huiyang BL-35

This is an important point for all male sexual disorders, including erectile dysfunction. Although it may be used for any pattern of disharmony, it is especially suited to cases of damp-heat and yang deficiency. It may be needled up to 1.5 cun deep (perpendicular insertion) and should ideally induce needling sensation that travels to the perineum or genitals.

Ciliao BL-32

Ciliao BL-32 should ideally be needled 1.5 to 2 cun deep, through the second sacral foramen. If this is done successfully, then a strong radiating sensation should penetrate through the abdomen and maybe as far as the genitals or perineum. In practice it may be difficult to locate the foramen, or rather to penetrate it with the needle, perhaps because of anatomical variations in the diameter of the foramen. A slightly medial and inferior insertion may make it easier.

Guanyuan REN-4

This is a meeting point of the Conception vessel which descends through the genital region, and the three leg yin channels, all of which are important in the treatment of erectile dysfunction. It is also, of course, one of the most important acupuncture points to treat any pattern of Kidney deficiency. In common with other lower abdominal Conception vessel points used to treat erectile dysfunction, needling should induce deqi that travels strongly down the centre of the penis. This is facilitated by a deep insertion, directed obliquely distally, although a full bladder should be emptied before performing this method.

Qichong ST-30

The Penetrating vessel emerges at the perineum and meets the Stomach yangming channel at Qichong ST-30. The Penetrating vessel influences the lower abdomen as a whole, including the genital organs. Due to these qualities as well as its location, Qichong ST-30 is indicated for a whole range of genital disorders including erectile dysfunction, swelling and pain of the penis, pain and retraction of the testicles etc. Qichong ST-30 is especially indicated when there is pain in the lower abdomen and genitals (mostly due to qi stagnation, blood stasis or cold) and due to its location is ideal when the pain is in the testicle/s. For this purpose it should be needled slightly inferiorly and slightly medially to induce deqi to radiate down into the testicle. Needling should be smooth and cautious, and not excessively deep, to avoid injuring the spermatic cord.

Sanyinjiao SP-6

This point is, of course, the meeting point of the Spleen, Liver and Kidney channels, and disharmony of their associated zang is fundamental to all male sexual disorders, including erectile dysfunction. Furthermore, the Spleen sinew channel converges at the external genitalia.

2. Points for various patterns of disharmony

I list here a number of the more important secondary points. This is followed by some suggested point prescriptions for the different patterns of disharmony.

Discussion of particular secondary points

Shenshu BL-23

This is one of the main acupuncture points to tonify the Kidneys in cases of deficiency of yin, yang or jing.

Zhishi BL-52

Zhishi BL-52, also known as Jinggong (Palace of Essence), is mainly used to tonify the Kidneys and may be used as an alternative to Shenshu BL-23, especially when treatment is being given frequently and one does not wish to tire the points through over-use.

Mingmen DU-4

This is mostly treated by moxibustion for cases of coldness of the 'room of sperm', in other words deficiency of Kidney yang/ming men fire. If available, aconite cakes can be used to mediate large moxa cones.

Qihai REN-6

The name of this point, Qihai (Sea of Qi), emphasises the principal difference between it and Guanyuan REN-4. Whilst both have a powerful action on tonifying the Kidneys, the emphasis of Qihai REN-6 is on generating (and moving) qi and yang and it does not share the yin and blood nourishing qualities of Guanyuan REN-4.

Yingu KID-10

Yingu KID-10 both clears damp-heat from the lower jiao, especially the genito-urinary system, and benefits the Kidneys. In fact there is a close relationship between damp-heat and Kidney deficiency, since if Kidney yin deficiency gives rise to heat, this may combine with dampness to form damp-heat, whilst prolonged damp-heat will consume first Kidney yin and then Kidney yang.

Ququan LIV-8

Ququan LIV-8 is an important point to clear damp-heat from the genital region but may also be used for cases of Liver (yin or blood) deficiency.

Zusanli ST-36

As well as tonifying qi, nourishing blood and yin, strengthening the Spleen and Stomach and resolving dampness, Zusanli ST-36 has an indirect effect on tonifying the Kidneys via its action on the Spleen. The Complete Works of Jing-yue says "Ming men is the sea of the essence and blood, the Spleen is the sea of water and grain; the two together form the foundation of the five zang and six fu", whilst the Essential Questions says "The Kidneys dominate water; they receive essence from the five zang and six fu and store it, therefore only when the five zang are flourishing is ejaculation possible".

Ligou LIV-5

All the primary and secondary Liver channels travel to the genital region, but the luo-connecting channel from Ligou LIV-5 is especially important. Ligou LIV-5 is particularly used when damp-heat sinks down to the genitals causing flaccidity.

Rangu KID-2

Rangu KID-2 may be used both to tonify Kidney yang in cases of erectile dysfunction accompanied by low libido, and to clear empty heat which is agitating the genitals, giving rise to a heightened libido accompanied by an unstable erection.

Taixi KID-3

Like Shenshu BL-23, Taixi KID-3 may be used for any pattern of Kidney deficiency.

Dadun LIV-1

Unlike most of the jing-well points which tend to treat the upper body in general and the opposite end of the channel in particular, Dadun LIV-1 has a strong action on the genital region and is an important point in any disorder where there is pain and distention in this region.

2. Suggested secondary point prescriptions

Kidney yang deficiency

Shenshu BL-23
Mingmen DU-4
Guanyuan REN-4
Sanyinjiao SP-6
Zusanli ST-36
Taixi KID-3

Kidney yin deficiency with empty fire

Guanyuan REN-4
Rangu KID-2
Dahe KID-12
Sanyinjiao SP-6
Taixi KID-3
Shenshu BL-23

Kidney jing deficiency

Guanyuan REN-4
Qihai REN-6
Shenshu BL-23
Zusanli ST-36
Sanyinjiao SP-6
Taixi KID-3

Damp-heat pouring downwards (in the Liver and/or Kidney channels) usually with underlying Kidney deficiency

Zhongji REN-3
Qichong ST-30

Shenshu BL-23
 Ququan LIV-8 and/or Yingu KID-10 and Yinlingquan SP-9
 Ligou LIV-5
 Sanyinjiao SP-6

Liver qi stagnation

Ganshu BL-18
 Guanyuan REN-4
 Qugu REN-2
 Qichong ST-30
 Ligou LIV-5
 Taichong LIV-3
 Dadun LIV-1

Heart and Gall Bladder qi deficiency (also called fright injuring the Kidneys)

Xinshu BL-15
 Ganshu BL-18
 Danshu BL-19
 Guanyuan REN-4
 Shaofu HE-8
 Shenmen HE-7
 Yanglingquan GB-34
 Sanyinjiao SP-6

Liver blood and yin deficiency

Ganshu BL-18
 Pishu BL-20
 Shenshu BL-23
 Guanyuan REN-4
 Sanyinjiao SP-6
 Taichong LIV-3

Heart and Spleen both deficient

Baihui DU-20
 Shenting DU-24
 Yintang (M-HN-3)
 Shenmen HE-7
 Xinshu BL-15
 Pishu BL-20
 Shenshu BL-23
 Guanyuan REN-4
 Zusanli ST-36
 Sanyinjiao SP-6

Spleen deficiency with dampness and phlegm

Guanyuan REN-4
 Zusanli ST-36
 Fenglong ST-40
 Yinlingquan SP-9
 Sanyinjiao SP-6
 Taibai SP-3

Cold in the Liver channel

Qihai REN-6
 Guanyuan REN-4
 Guilai ST-29
 Qichong ST-30
 Ligou LIV-5
 Dadun LIV-1

General treatment principles

Focus

Although it is tempting to try and treat all disharmonies detected in a patient, as well as to follow the daily or weekly variations that inevitably occur in a person's well-being and health, maintaining a clear focus on the main problem being treated often brings the best results. For example a patient may come with erectile dysfunction and asthma and a chronic knee injury. Sequential treatment (in other words treating the erectile dysfunction until it improves or shows that it is not going to, followed by treatment for the asthma or the knee) will maximise the chances of success. An obvious exception would be where an acute attack of wind-cold, for example, threatens to induce severe asthma, and the patient specifically requests (or clearly needs) treatment for this. Similarly a patient may report all kinds of mood variations from week to week, but unless these clearly relate to erectile dysfunction (for example depression), it is not necessarily helpful to be caught up in these changes. Ultimately, however, to what degree it is helpful or essential to treat co-existing symptoms and patterns of disharmony is a matter of clinical judgement.

Point selection

Generally a few main points will be selected each time, with additional secondary points. It is often not necessary to change the points being used (especially the main points) unless treatment is very frequent, in which case two alternating point prescriptions can be used, for example i. Ciliao BL-32 and Huiyang BL-35, and ii. Guanyuan REN-4 and Qichong ST-30 etc.

Deqi

As far as possible, with the points on the sacral area and lower abdomen, deqi should be propagated down to the genital and perineal areas.

Sexual activity

The patient should be encouraged to refrain from ejaculation for several weeks after the onset of treatment, although sexual activity short of ejaculation is fine. For patients with low libido especially, if unfamiliar sexual feelings start to stir it is tempting for them to rush to indulge them, but since some degree of Kidney deficiency underlies much erectile dysfunction, sex to the point of ejaculation can quickly dissipate this early growth.

Lifestyle changes and self-help for erectile dysfunction

Smoking

Smoking tobacco is significantly related to the likelihood of developing erectile dysfunction, especially when accompanied by hypertension, and many studies have demonstrated a link. In one, a study of 4764 Chinese men, those who smoked more than 20 cigarettes a day had a 60% greater risk of erectile dysfunction than men who had never smoked, with a 36% greater risk for 11-20 cigarettes a day, and 16% for less than 10 cigarettes²⁵. This study also found an increased risk in former smokers. In another study using data from the Massachusetts Male Aging Study²⁶, cigarette smokers were twice as likely to suffer erectile dysfunction as non-smokers over an eight-year period. Cigar smoking and passive smoking were also found to increase the risk of developing erectile dysfunction.

Exercise & obesity

Another finding of the Massachusetts Male Aging study was that men who take regular exercise (burning 200 calories a day) have far less risk of erectile dysfunction than men who take no exercise, and that even men who initiate physical activity in midlife have a 70% reduced erectile dysfunction rate compared with sedentary controls.²⁷ As far as obesity is concerned, an Italian study²⁸ randomly assigned 110 obese men who suffered from erectile dysfunction to a study group who were put on an intensive weight loss programme for two years, and a control group. Over the two-year programme, men in the study group lost an average of 15kg (while those in the control group lost only 2kg) and 31% of them had erectile function restored, compared to 5% in the control group.

Cycling

In a review of studies on the relationship between cycling and erectile dysfunction it was concluded that high pressures in the perineum while straddling a saddle compress and temporarily occlude penile blood flow, giving rise to potentially permanent artery blockage. The prevalence of moderate and severe erectile dysfunction in cyclists was 4.2% and 4% versus 1.1% of age-matched runners and 2% of swimmers. Previous studies have indicated that sexual health consequences adversely affect 5% of cyclists and that night-time erections were of poorer quality in biking police officers compared to non-biking police officers. Furthermore, night-time erection quality decreased as seat pressure increased and as the average number of hours in the saddle a day increased. It is suggested that cyclists should take precautionary measures by changing saddles with a protruding nose to one with a noseless seat, changing the material of the saddle and tilting the saddle/seat downwards.²⁹ It has also been suggested that horseback riding may have similar consequences.

Licorice

Recent research suggests that testosterone, which plays a key role in erectile dysfunction, may be reduced by consumption of licorice. The study, published in *Experimental and Clinical Endocrinology and Diabetes*, which found that after one week of treatment with licorice, mean testosterone levels decreased 26%, was the researchers' second study finding a link between testosterone and licorice.³⁰

Ginseng

Many herbs have been linked to improvements in erectile dysfunction, and one that has been comprehensively studied is Ginseng (Ren Shen). For example one study into the effect of Korean red ginseng on erectile dysfunction showed changes in early erection loss, penile rigidity and width, libido and patient satisfaction, compared to control. The overall therapeutic effectiveness was 60% for the ginseng group and 30% for a placebo and a drug treatment (trazodone) group. The researchers found that if the ginseng was administered for a prolonged period of time, there was an improvement of blood flow to the penis.³¹

Pelvic floor exercises

One of the most exciting developments in self-help for erectile dysfunction has been the work of Professor Grace Dorey of Bristol University in the UK. Her landmark study³² on pelvic floor exercises and erectile dysfunction found significant improvements in erectile dysfunction (as well as premature ejaculation and dribbling after urinating). The exercises strengthen the muscles around the penis and improve blood supply in the pelvis. Of 55 men with an average age of 59 who had experienced erectile dysfunction for six months or more, 40% regained normal erectile function, 35.5% improved and 25.5% showed no difference. The improvement resulting from pelvic floor exercises thus compared to the use of Viagra, with the difference that the exercises produce a lasting effect. The exercises should be practised twice a day and consist (each time) of three ten-second pelvic floor contractions (as hard as possible and followed by three ten-second relaxations) in three different positions: lying, sitting and standing, as well as longer 50% contractions while walking and before and during strenuous activity such as coughing, sneezing, lifting and when rising from sitting, although it should not be practised during urination as has been previously advised. The exercises should be practised daily for up to six months, although it is also suggested that all men should practise as a matter of routine through their lifetimes. It was a notable feature of the study that great steps were taken to ensure compliance, including regular sessions of instruction and monitoring, and a special video and booklet that was given to all participants.

It should be noted that perineal contraction and lifting is traditionally practised in many styles of Chinese qigong and that there is a specific series of qigong practices that go under the name of 'iron crotch qigong' that are devoted to male sexual health. These involve various forms of massage of the testicles and spermatic cord, as well as abdominal massage and exercises to strengthen the Kidneys.

Clinical studies into acupuncture and erectile dysfunction

Numerous (overwhelmingly positive) Chinese studies have been conducted into the treatment of erectile dysfunction by acupuncture, but as these rarely include control groups and have other methodological shortcomings, they are not generally accepted.

An Austrian study³³ divided 22 men with psychogenic erectile dysfunction into two groups and treated one with erectile dysfunction-specific

acupuncture and the other (the control) with headache-specific acupuncture. A satisfactory response was observed in 68.4% of the treatment group and 9% of the control group.

Another study³⁴ published in the International Journal of Impotence Research gave eight treatments over four weeks to 16 patients suffering from erectile dysfunction. Fifteen percent experienced improved quality of erection and 31% reported an increase in sexual activity. No hormonal changes were noted on the basis of before and after blood tests. ■

Peter Deadman is the editor of *The Journal of Chinese Medicine* and co-author of *A Manual of Acupuncture*. Over the last four years he has lectured widely on male sexual diseases, especially erectile dysfunction, male subfertility, chronic pelvic pain syndrome in men and benign prostatic enlargement, in order to encourage greater knowledge of and interest in these disorders among Chinese medicine practitioners.

Notes

- Feldman HA et al. Impotence and its medical and psychological correlates: results of Massachusetts male aging study. *Journal of Urology* 151:54-61, 1994.
- Rafi Heruti MD, Tzipi Shochat MSc, Dorit Tekes-Manova MD, Itshak Ashkenazi MD, Dan Justo MD. Prevalence of Erectile Dysfunction Among Young Adults: Results of a Large-scale Survey. *Journal of Sexual Medicine*, 2004, 1:284-291.
- Mellinger BC, Weiss J. Sexual dysfunction in the elderly male. *Am Urol Assoc Update Series* 11: 146-152, 1992.
- Shabsigh R, Klein LT, Seidman S, Kaplan SA, Lehrhoff BJ, Ritter JS. Increased incidence of depressive symptoms in men with erectile dysfunction. *Urology* 1998 Nov; 52(5):848-852.
- Feldman HA, Goldstein I, Hatzichristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. *J Urol* 1994 Jan;151:54-61.
- Abstract from WHO Consultation on erectile dysfunction, 1999.
- Althof SE, O'Leary MP, Cappelleri JC, Hvidsten, MPH K, Stecher VJ, Gline S, King R, and Siegel, MD RL. Sildenafil Citrate Improves Self-Esteem, Confidence, and Relationships in Men with Erectile Dysfunction: Results from an International, Multi-Center, Double-Blind, Placebo-Controlled Trial
- Dr. Myron Murdoch (Murdoch M. "One year after Viagra" Interview, CNN.com, 3/99).
- Billups KL, Bank AJ, Padma-Nathan H, Katz S, Williams R. Erectile Dysfunction Is a Marker for Cardiovascular Disease: Results of the Minority Health Institute Expert Advisory Panel. *The Journal of Sexual Medicine*, Jan 2005, 2(1): 51-51.
- <http://www.cornellurology.com>
- <http://www.cornellurology.com>
- June 21, 2005, online edition of *Circulation: Journal of the American Heart Association*).
- www.arhp.org/files/MatureSexuality_sexual%20history%20taking.ppt
- www.hisandherhealth.com/articles/newmaledrugs.shtml
- University of New South Wales website: <http://www.science.unsw.edu.au/news/2005/viagra.html>
- Harry Fisch – Professor of Clinical Urology and Director of Male Reproductive Center at Columbia University and author of *The Male Biological Clock: The Startling News About Aging, Sexuality & Fertility in Men*).
- El-Galley R, Rutland H, Talic R, Keane T, Clark H. Long-term efficacy of sildenafil and tadalafil effect. *J Urol*. 2001;166: 927-931.
- <http://www.newscientist.com/article.ns?id=dn4841>
- Su Wen, Chapter 1: Discourse on the Natural Truth of Ancient Times.
- "Sexual life does not begin only at puberty, but starts with plain manifestations soon after birth", Sigmund Freud in *An Outline of Psycho-Analysis*, 1938.
- Maciocia, G (2005). *The Foundations of Chinese Medicine*. Churchill Livingstone, Edinburgh, p201.
- Chen Shiduo, quoted in Kou, M (2003) *The Treatment of Heart Impotence in the Bian Zheng Lu*, *The Journal of Chinese Medicine*, 72:45.
- Kou, M (2003) *The Treatment of Heart Impotence in the Bian Zheng Lu*, *The Journal of Chinese Medicine*, 72:45.
- Guo J, Kong L, Gao X. A Parallel Study on the Effects in Treatment of Impotence by Tonifying the Kidney with and that Without Improving Blood Circulation. *Journal of Traditional Chinese Medicine* 19(2):123-125.
- American Heart Association, 43rd Annual Conference on Cardiovascular Disease Epidemiology & Prevention (<http://www.webmd.com/content/article/62/71479.htm>).
- Feldman HA, Johannes CB, Derby CA, Kleinman KP, Mohr BA, Araujo AB, McKinlay JB. Erectile dysfunction and coronary risk factors: prospective results from the Massachusetts male aging study. *Prev Med*. 2000 Apr;30(4):328-38.
- Derby CA, Mohr BA, Goldstein I, Feldman HA, Johannes CB, McKinlay JB. Modifiable risk factors and erectile dysfunction: can lifestyle changes modify risk? *Urology* 2000;56(2):302-6.
- Evans MF, Giugliano F, Di Palo C, Giugliano G, Marfella R, D'Andrea F, et al. Effect of lifestyle changes on erectile dysfunction in obese men. *JAMA* 2004;291:2978-84.
- Huang V, Munarriz R, and Goldstein I. Bicycle riding and erectile dysfunction: An increase in interest (and concern). *J Sex Med* 2005;2:596-604.
- Armanini D, Bonanni G, Mattarello M, J, Fiore C, Sartorato P, Palermo M. Licorice Consumption and Serum Testosterone in Healthy Men. *Exp Clin Endocrinol Diabetes* 2003; 111: 341-343.
- Choi HK, Seong DH, Rha KH. Clinical efficacy of Korean red ginseng for erectile dysfunction. *Int J Impot Res* 1995 Sep;7(3):181-186.
- Dorey G, Speakman MJ, Feneley RC, Swinkels A, Dunn CD. Pelvic floor exercises for erectile dysfunction. *BJU Int*. 2005 Sep;96(4):595-7.
- Engelhardt PF, Daha LK, Zils T, Simak R, Konig K, Pflugger H. Acupuncture in the treatment of psychogenic erectile dysfunction: first results of a prospective randomized placebo-controlled study. *Int J Impot Res*. 2003 Oct;15(5):343-6.
- H G Kho, C G J Sweep, X Chen, P R I Rabsztyn and E J H Meuleman. The use of acupuncture in the treatment of erectile dysfunction. *International Journal of Impotence Research* 11, 41-46 (12 Feb 1999).