

## Sexual dysfunction



### Erectile dysfunction in diabetes – getting to the size of the matter

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It has long been recognised that erectile dysfunction (ED) is more common in men with diabetes, and various mechanisms have been cited as responsible, including penile smooth muscle cell damage, impaired blood or nerve supply and endothelial dysfunction. Whilst these functional changes in the penis have been the focus of much attention, little information is available on penile size *per se* in men with diabetes. Yet a common perception that is reinforced from a young age is that a large penis size is the only guarantee of better sexual and reproductive capabilities (Salama, 2015). Some have claimed that penile girth may be more important for sexual satisfaction than length (Francken et al, 2002). Either way, the presence of small penile dimensions may adversely affect quality of life beyond that of erectile dysfunction (Son et al, 2003).

Given that the tunica albuginea, which is integrally linked to penile extensibility within the penile tissue, is subject to damage via a number of mechanisms in diabetes, it is perhaps tempting to speculate that penile dimensions may be reduced in men with ED. However, to date, little evidence has been published to confirm this.

The present study by Nader Salama (summarised alongside) was carefully conducted to evaluate erect and flaccid penile size in men with diabetes and ED and to compare with two control groups: men with ED and no diabetes and men with neither condition. Measurements

were standardised and the author claims they were quick to undertake and robust. The findings support the hypothesis that penile dimensions (length and circumference) are indeed reduced in men with ED, and even more so in those with comorbid diabetes. Several potential mechanisms are postulated, including chronic hypoxia and fibrosis, advanced glycation end-products and lipid-induced damage.

Do such findings have any practical implications? Our patients may report having a smaller penis and, rather than dismissing this claim, these findings afford a more scientific discussion of the evidence (“you are not alone compared with other men with diabetes and ED”) and to explain why this may occur. The author also speculates that this may be helpful in determining treatment options and monitoring treatment success in the future. Whether treatment of ED is associated with improvement in penile dimensions over time is largely unknown. For now, this is a helpful observation, although measuring penile dimensions routinely in clinical practice may be far off until a clear rationale for doing so becomes evident. ■

Francken AB, van de Wiel HB, van Driel MF, Weijmar Schultz WC (2002) What importance do women attribute to the size of the penis? *Eur Urol* **42**: 426–31

Salama N (2015) Consultation for small-sized penis in the Egyptian males: a case control study. *Am J Mens Health* 6 Jan [Epub ahead of print]

Son H, Lee H, Huh JS et al (2003) Studies on self-esteem of penile size in young Korean military men. *Asian J Androl* **5**: 185–9

### Am J Mens Health

## Reduced penile size in men with diabetes and ED

Readability ////

Applicability to practice //

WOW! Factor ////

**1** In this case–control study from Egypt, penis size was compared between men with diabetes and erectile dysfunction (ED), men with ED but no diabetes and men with neither condition.

**2** A single physician who was unaware of the study assessed both flaccid and erect penile dimensions as well as the depth of the prepubic fat pad.

**3** Each group comprised 105 men, all matched for age and with a similar BMI of around 29 kg/m<sup>2</sup>.

**4** Erect penile length was greatest in men with neither ED nor diabetes (mean, 15.04 cm), followed by those with ED and no diabetes (14.88 cm) and then men with the two conditions (13.96 cm).

**5** Erect length was significantly lower in men with both conditions compared with those with ED only and those with neither condition. The difference between men with ED only and those with neither condition was non-significant.

**6** Similar differences were observed in terms of flaccid penile length (mean, 12.88 cm, 12.77 cm and 11.8 cm in men with neither condition, ED only and ED plus diabetes, respectively).

**7** Surprisingly, the depth of the prepubic fat pad, which can give a false impression of reduced penile length, was lowest in the diabetes group.

**8** The author concludes that men with ED and diabetes had significantly smaller penis size than those with ED alone or neither condition.

Salama N (2015) Penile dimensions of diabetic and nondiabetic men with erectile dysfunction: a case–control study. *Am J Mens Health* 30 Jun [Epub ahead of print]

## Diabet Med

### New questionnaire to assess sexual dysfunction in South Asian men

Readability ////  
 Applicability to practice ////  
 WOW! Factor ////

- 1 While the International Index of Erectile Function-5 (IIEF-5) is the most commonly used tool to assess sexual dysfunction in men, it focusses on erectile dysfunction and not disorders such as premature ejaculation, which are more common in South Asian men than Caucasians.
- 2 Therefore, these authors sought to develop and validate the Sexual Dysfunction in Asian Men with Diabetes (SAD-MEN) questionnaire, a new tool encompassing all aspects of sexual dysfunction that would be appropriate for use in South East Asia.
- 3 The questionnaire has 38 questions (12 on demographics and medical history, 13 on history of sexual disorders, nine on components of sexual performance and four on sexual desire), each answered on a Likert scale ranging from 1 to 5.
- 4 The questionnaire was validated in 100 men aged  $\geq 40$  years with T2D and was compared with the coadministered IIEF-5.
- 5 The SAD-MEN questionnaire was shown to have high reliability, with the nine items on sexual performance yielding a Cronbach's alpha value of 0.949 and the four on sexual desire yielding an alpha value of 0.775. High test-retest reliability was also demonstrated (Spearman's  $r=0.853$ ).
- 6 In summary, this new tool is reliable to assess sexual dysfunction in South Asian men. In addition to the English version, a Malay version was evaluated in the study with similar results.

Chung CM, Lu MZ, Wong CY et al (2015) The SAD-MEN questionnaire: a new and reliable questionnaire for assessing sexual dysfunction in Asians with diabetes. *Diabet Med* 22 Jul [Epub ahead of print]

## Andrology

### Adding liraglutide to testosterone and diabetes therapy in obese men with hypogonadism

Readability ////  
 Applicability to practice ////  
 WOW! Factor ////

- 1 In this retrospective, observational study of a real-world cohort, the authors evaluated whether adding liraglutide to a regimen of lifestyle change, metformin and testosterone replacement therapy could improve erectile function in obese men with poorly controlled T2D, hypogonadism and erectile dysfunction.
- 2 A total of 43 men were assessed. All were given testosterone and high-dose metformin in addition to lifestyle changes for 1 year. Those who failed to achieve an  $HbA_{1c} \leq 58$  mmol/mol (7.5%;  $n=26$ ) received additional liraglutide 1.2  $\mu$ g for a further year, while those who responded remained on the same regimen.
- 3 Over the course of the second year, the addition of liraglutide improved  $HbA_{1c}$  by a mean of 10 mmol/mol (0.9%), body weight by 4.9 kg and International Index of Erectile Function-5 (IIEF-5) score by 4.3 points ( $P<0.05$  for all comparisons).
- 4 In contrast, participants who did not receive additional liraglutide had no improvement in IIEF-5 scores and significant increases in  $HbA_{1c}$  and body weight.
- 5 These results were independent of whether hypogonadism occurred before or after puberty.
- 6 The authors caution that, given the design of their study, the results will need to be replicated in randomised controlled trials.

Giagulli VA, Carbone MD, Ramunni MI et al (2015) Adding liraglutide to lifestyle changes, metformin and testosterone therapy boosts erectile function in diabetic obese men with overt hypogonadism. *Andrology* 3: 1094-103

## Arch Sex Behav

### Sexual response in women with type 1 diabetes

Readability ////  
 Applicability to practice ////  
 WOW! Factor ////

- 1 This study compared sexual arousal, vaginal blood flow and clitoral sensitivity between 42 women with T1D and 46 controls matched for age and menopausal status.
- 2 The authors measured vaginal blood flow (vaginal pulse amplitude) and subjective sexual response (nine-item questionnaire) at rest, during erotic film viewing and during vibrotactile clitoral stimulation.
- 3 In addition, clitoral sensitivity was measured using a vibration perception test and sexual function was assessed using the Female Sexual Function Index (FSFI) and the Female Sexual Distress Scale (FSDS).
- 4 Contrary to expectations, no significant difference in vaginal blood flow, subjective sexual arousal or clitoral sensitivity was observed between the two groups.
- 5 There was no significant correlation between diabetes duration or  $HbA_{1c}$  and FSFI or FSDS scores. In fact, longer diabetes duration was associated with a higher sexual satisfaction score within the FSFI ( $r=0.35$ ;  $P=0.031$ ).
- 6 However, women with retinopathy had significantly lower vaginal blood flow than controls ( $P=0.006$ ) and those with neuropathy had a higher vibration sensation threshold ( $P=0.001$ ).
- 7 The results do not support the hypothesis of a disrupted genital arousal response in women with T1D; however, diabetes-related complications may affect the physiological basis of sexual response.

Both S, Ter Kuile M, Enzlin P et al (2015) Sexual response in women with type 1 diabetes mellitus: a controlled laboratory study measuring vaginal blood flow and subjective sexual arousal. *Arch Sex Behav* 44: 1573-87

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