

## Sexual dysfunction



### The benefits of intensive lifestyle intervention in women with type 2 diabetes – why weight?

**Mike Cummings**

Consultant Physician and Honorary Professor, Queen Alexandra Hospital, Portsmouth

Over the last two decades sexual health in men with diabetes has been investigated extensively, had its treatment identified and now features prominently in routine diabetes care as part of the QOF target in 2013 (NICE QOF Advisory Committee, 2013). By contrast, sexual health in women with diabetes has been relatively neglected, yet some studies suggest female sexual dysfunction (FSD) affects over 50% of this population (Enzlin et al, 2009). In a recent study, we identified reduced vaginal lubrication, an inability to achieve orgasm, dyspareunia and a reduction in libido in women with diabetes compared with a control group (Meeking et al, 2013). Other concerns included increased susceptibility to genitourinary infection, problems of self-image, depression and mood-related issues, plus a range of reproductive and contraceptive worries that affected sexual health.

In men, there are a wide range of therapeutic options to treat erectile dysfunction including phosphodiesterase type 5 (PPDE5) inhibitors, intraurethral pellets and intracavernosal therapy. However, it is also clear that weight loss is associated with improvements in erectile function (Esposito et al, 2004), which can negate the need for pharmacological intervention. Despite the emerging epidemiological evidence suggesting FSD is highly prevalent in females with diabetes, treatment options are very limited. Thus, the study by Wing et al (summarised alongside) is

welcomed as it demonstrates an improvement in FSD in sexually active overweight or obese women with diabetes who followed an intensive lifestyle intervention (ILI) for 12 months, mirroring the findings in men with diabetes. In the ILI group, a mean weight loss of 7.6 kg was associated with significant improvement in validated sexual health questionnaire scores (Female Sexual Function Inventory and Beck Depression Inventory), and these women were more likely to remain sexually active.

The mechanisms for the observed improvement are not speculated upon by the authors, but, in men, weight loss is associated with improved endothelial function, a major aetiological factor in the development of erectile dysfunction (Esposito et al, 2004). This study provides potential additional incentive for overweight women with diabetes to adopt more rigorous lifestyle measures to achieve weight loss. ■

Enzlin P, Rosen R, Wiegel M et al (2009) DCCT/EDIC Research Group. Sexual dysfunction in women with type 1 diabetes: long term findings from the DCCT/EDIC study cohort. *Diabetes Care* **32**: 780–5

Esposito K, Giugliano F, Di Palo C et al (2004) Effect of lifestyle changes on erectile dysfunction in obese men. *JAMA* **291**: 2978–84

Meeking DR, Fosbury JA, Cummings MH (2013) Sexual dysfunction and sexual health concerns in women with diabetes. *Practical Diabetes* **30**: 327–31a

NICE QOF Advisory Committee (2013) *Summary of recommendations for the NICE menu of indicators for the QOF*. NICE, London. Available at: <http://bit.ly/190Qsuv> (accessed 03.01.14)

### Diabetes Care

## Intensive intervention on female sexual dysfunction

Readability /////

Applicability to practice ////

WOW! Factor ////

**1** This study investigated the effect of an intensive lifestyle intervention (ILI) on sexual dysfunction in a sub-group of women participating in the Look AHEAD Sexual Function Ancillary study. Participants were required to give consent and given a \$25 gift card.

**2** Obese women with T2D from five Look AHEAD sites participated (mean age 61.4 ± 6.1; mean BMI 36.5 ± 6.0 kg/m<sup>2</sup>). Participants were randomly assigned to receive the ILI (*n*=193) or to continue with normal care (*n*=182).

**3** Participants completed the self-reported Female Sexual Function Inventory and Beck Depression Inventory and clinical measurements were recorded at baseline and 1 year follow-up.

**4** At baseline, 50% of the 229 women who reported being sexually active, met the criteria for female sexual dysfunction (FSD).

**5** After 1 year, women in the ILI group who had FSD at baseline were significantly more likely to remain sexually active than women in the usual care group (*P*<0.008). Among those that remained sexually active, 28% of the ILI group and 11% of the usual care group experienced remission of their FSD (*P*<0.04).

**6** After controlling for baseline variables, the authors also found that greater weight loss from baseline to 1 year was the only variable associated with increased odds of remaining sexually active (odds ratio [OR] 1.15; 95% confidence intervals [CI]; *P*=0.025).

Wing RR, Bond DS, Gendrano IN 3rd et al (2013) Effect of intensive lifestyle intervention on sexual dysfunction in women with type 2 diabetes: results from an ancillary Look AHEAD study. *Diabetes Care* **36**: 2937–44

## Int J Impot Res

### Meal replacements to improve erectile dysfunction

**Readability** ✓✓✓✓  
**Applicability to practice** ✓✓✓✓  
**WOW! Factor** ✓✓✓✓

**1** In a cohort of 24 obese Asian men with mild to moderate erectile dysfunction (ED), participants were randomised to receive either a meal-replacement (MR)-based plan or conventional reduced-fat diet (CD) to investigate the meals' effects on weight, sexual function and testosterone.

**2** Participants with no diabetes or cardiovascular disease were recruited to each group (mean age 40.5 years; BMI  $\geq 27.5$  kg/m<sup>2</sup>; and waist circumference [WC]  $\geq 90$  cm). After 12 weeks on their designated diet, all participants continued on the CD plan for another 28 weeks.

**3** At 12 weeks, there were significantly greater reductions in weight, WC, calorie and fat intake in the MR group compared to the CD group. At 40 weeks, weight loss and decreases in WC were maintained in both groups.

**4** At baseline, most men had mild ED (measured by the International Index of Erectile Function 5-item Questionnaire [IIEF-5 score]). At 12 and 40 weeks, in both groups most participants had an improved IIEF-5 score, with no significant difference between the two diet groups.

**5** Sexual desire and quality of life also improved by similar increments in the CD and MR groups.

**6** The findings show that both diets had similar efficacies for improving the sexual and endothelial function, and quality of life in obese Asian men. However, the MR diet induced more weight loss and a larger decrease in WC than the CD plan.

Khoj J, Ling PS, Tan J et al (2013) Comparing the effects of meal replacements with reduced-fat diet on weight, sexual and endothelial function, testosterone and quality of life in obese Asian men. *Int J Impot Res* 7 Nov [Epub ahead of print]

## Diabetes Care

### Sexual dysfunction: A CVD screening tool

**Readability** ✓✓✓✓  
**Applicability to practice** ✓✓✓  
**WOW! Factor** ✓✓✓

**1** Self-assessments of sexual dysfunction (SD) in men with T1D for at least 50 years were used to investigate whether SD is a marker for cardiovascular disease (CVD), and whether SD affects the prevalence of, and is associated with, CVD.

**2** Of 301 males asked as part of the Medalist study, 69.8% reported

a history of SD. Erectile dysfunction as a measure of SD was defined as an International Index of Erectile Dysfunction score of  $\leq 17$ .

**3** The association of lifetime SD and CVD remained after adjustment for age, BMI, cholesterol, HDL, smoking, IL-6, antihypertensive medication and HbA<sub>1c</sub> (odds ratio [OR]=3.7; 95% confidence intervals [CI] 1.5–9.0).

**4** One limitation of this approach is that, due to self-reporting, SD caused by social, economic, or lifestyle factors, rather than the endothelial pathology, could not be excluded.

Turek SJ, Hastings SM, Sun JK et al (2013) Sexual dysfunction as a marker of cardiovascular disease in males with 50 or more years of type 1 diabetes. *Diabetes Care* 36: 3222–6

## Urology

### Androgen deficiency predictors in T2D

**Readability** ✓✓✓✓  
**Applicability to practice** ✓✓✓  
**WOW! Factor** ✓✓✓

**1** T2D is a known contributor to androgen deficiency (AD) in Western populations, so the authors of this cross-sectional study aimed to test if this was the case in a Chinese population.

**2** In total, data from 766 men with T2D attending out-patient clinics were used to determine the clinical variables associated with the risk of AD.

AD was defined as a total testosterone level of  $\leq 300$  ng/dL.

**3** In total, 32.5% of participants had AD (a value similar to Western populations). The AD group was older, had a higher BMI and waist circumference, and higher levels of triglyceride, uric acid, and lower levels of total, HDL- and LDL-cholesterol. There was also a higher frequency of metabolic syndrome and stroke.

**4** After age adjustment, AD was positively associated with metabolic syndrome (odds ratio [OR]=2.142), and obesity was confirmed as a major predictor of AD in a Chinese population.

Liu RT, Chung MS, Wang PW et al (2013) The prevalence and predictors of androgen deficiency in Taiwanese men with type 2 diabetes. *Urology* 82: 124–9

## Urology International

### Cardiovascular risk, hsCRP and erectile dysfunction

**Readability** ✓✓✓✓  
**Applicability to practice** ✓✓✓✓  
**WOW! Factor** ✓✓✓✓

**1** High sensitivity C-reactive protein (hsCRP) is a cardiovascular risk factor and the authors aimed to determine if this marker could be used for cardiovascular risk assessment in

individuals with erectile dysfunction (ED).

**2** In total, 112 men with ED were subjected to clinical and physical examinations and classified with either a low or moderate–high cardiovascular risk depending on their hsCRP level.

**3** Linear regression analysis showed there was no statistically significant association between hsCRP level and ED severity; however, there was a significant association between high hsCRP, hypogonadism and obesity.

Ferrandis-Cortes C, Martínez-Jabaloyas JM, Díez-Calzadilla NA et al (2013) Cardiovascular risk assessment using high-sensitivity C-reactive protein in patients with erectile dysfunction. *Urol Int* 91: 187–91

“After 1 year, women in the intensive lifestyle intervention group who had female sexual dysfunction at baseline were significantly more likely to remain sexually active than women in the usual care group (P<0.008).”