

## Sexual dysfunction

### Diabetes, obstructive sleep apnoea syndrome and ED – what do you ask your patients?



Mike Cummings, Consultant Physician and Honorary Professor, Queen Alexandra Hospital, Portsmouth

**O**ur most recent departmental diabetes meeting focused on the prevalence and diagnosis of obstructive sleep apnoea syndrome (OSAS) in type 2 diabetes. Incredibly, some case series have reported that 23% of people with diabetes may have this condition without being aware of it (West et al, 2006).

Our respiratory physician commented that he had been waiting for this can of worms to be opened for some time.

We discussed the limitations of using questionnaires to define the condition, agreeing that simply asking participants if they fall asleep during the day, and in what situations, is equally instructive in determining whether further investigation is warranted.

But, do we routinely ask this question, given the high prevalence of OSAS in diabetes, which can readily be treated with continuous positive airways pressure? I suspect not.

Similarly, erectile dysfunction (ED) is incredibly common in men with diabetes, yet routinely questioning them to establish

whether they have the condition, and if it is troublesome, is still uncommon.

The study by Santos et al (2012; summarised alongside) serves to remind us that OSAS and ED are inter-related. OSAS is associated with intermittent hypoxic events with potentially significant effects on the mechanisms for achieving tumescence through impact on neural, endothelial, hormonal and psychogenic pathways.

In their study, Santos et al report a prevalence of ED approaching 65% in men with OSAS. This suggests that it would be prudent to consider asking men with diabetes about daytime somnolence as well as erectile performance, given their frequent co-existence.

Moreover, treating OSAS has been associated with improvement in ED (Gonçalves et al, 2005), which may negate the need for using ED-specific therapies in this group.

**“Do we routinely ask this question, given the high prevalence of obstructive sleep apnoea syndrome in diabetes, which can readily be treated with continuous positive airways pressure? I suspect not.”**

Gonçalves MA, Guilleminault C, Ramos E et al (2005) Erectile dysfunction, obstructive sleep apnea syndrome and nasal CPAP treatment. *Sleep Med* 6: 333–9

West SD, Nicoll DJ, Stradling JR (2006) Prevalence of obstructive sleep apnea in men with type 2 diabetes. *Thorax* 61: 945–50

### REV PORT PNEUMOL

### High prevalence of erectile dysfunction in people with OSAS

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓✓

**1** Obstructive sleep apnoea syndrome (OSAS) is defined by recurrent episodes of upper airway obstruction during sleep, causing multiple clinical consequences.

OSAS induces a spectrum of abnormalities in neural, hormonal and vascular regulation that contribute to the development of erectile dysfunction (ED).

**2** The aims of the study were to estimate the prevalence of ED in people with OSAS and evaluate its determinants.

**3** Men ( $n=62$ ) with OSAS were included in the study and answered the international index erectile function 5-item version questionnaire.

**4** Age (odds ratio [OR], 1.23; 95% confidence interval [CI], 1.06–1.42) and diabetes (OR, 31.21; 95% CI, 1.22–796.56) were shown to be independent risk factors for more severe degrees of ED. Compared with non-smokers, the ex-smokers group revealed a positive association with ED (OR, 4.32; 95% CI, 1.09–17.11). Both hypertension (OR, 3.25; 95% CI, 1.09–9.65) and angiotensin converting enzyme inhibitors or angiotensin II receptor blockers therapy (ACEI–ARB; OR, 7.39; 95% CI, 1.52–35.99) correlated with ED symptoms.

**5** The authors found that the prevalence of ED in men with OSAS was high; other ED determinants were age and diabetes. Past smoking, hypertension and ACEI–ARB therapy also revealed a statistically significant association with ED.

Santos T, Drummond M, Botelho F (2012) Erectile dysfunction in obstructive sleep apnea syndrome—prevalence and determinants. *Rev Port Pneumol* 18: 64–71

### BIOSCI BIOTECHNOL BIOCHEM

### The herb Yidiyin improves ED in men with diabetes

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

**1** The authors investigated whether a Chinese herbal decoction would

improve erectile dysfunction (ED) in men with diabetes.

**2** Participants with low scores on the international index of erectile function–5 had improved scores after Yidiyin was given alongside hypoglycaemic drugs.

**3** The authors found that Yidiyin improves diabetic ED probably by enhancing the NO-cGMP pathway.

Feng XT, Qin CB, Leng J et al (2012) Yidiyin, a Chinese herbal decoction, improves erectile dysfunction in diabetic patients and rats through the NO-cGMP pathway. *Biosci Biotechnol Biochem* 76: 257–63

“Men over 40 years of age with abdominal obesity and erectile dysfunction are at high risk of testosterone deficiency syndrome and metabolic syndrome and should be assessed for these conditions routinely.”

## INT UROL NEPHROL

### Link between ED, testosterone and metabolic syndrome in obese men

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓

**1** The male sex hormones that play an important role in erectile dysfunction (ED) and testosterone deficiency syndrome (TDS) have been linked to the development of metabolic syndrome.

**2** In the present study the investigators sought to determine the prevalence of ED, TDS, and metabolic syndrome in men with abdominal obesity (AO), and the prevalence of morbidity at different testosterone levels (TST).

**3** Men ( $n=167$ ) with AO were recruited and a complete urological and internal evaluation was undertaken by the investigators.

**4** The investigators found some degree of ED in 73% (122/167) of men with AO. Overall, 68% (113/167) of participants had total TST levels below 14 nmol/L, while 49 (40.2%) participants had TST levels below 10 nmol/L.

**5** When compared with comorbidities, it was found that more participants with diabetes, hypertension and dyslipidemia had TST levels below 10 nmol/L than those without these concurrent conditions.

**6** The authors concluded that men over 40 years of age with AO and ED are at high risk of TDS and metabolic syndrome and should be assessed for these conditions routinely.

Fillo J, Breza J, Levikova M et al (2012) Occurrence of erectile dysfunction, testosterone deficiency syndrome and metabolic syndrome in patients with abdominal obesity. Where is a sufficient level of testosterone? *Int Urol Nephrol* Feb 8 [Epub ahead of print]

## CASE REPORTS IN MEDICINE

### Simultaneous bilateral NAION following sildenafil

Readability	✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

**1** The authors report a case of developed bilateral, simultaneous nonarteritic anterior ischaemic optic neuropathy (NAION) after the ingestion of sildenafil for relief of erectile dysfunction.

**2** A man with diabetes (aged 60 years) presented with a notable decrease in vision after taking sildenafil; a diagnosis of bilateral NAION was made and he was treated with methylprednisolone and oral prednisone. Final visual acuity was 20/50 right eye and 20/20 left eye.

**3** The authors concluded that people with predisposing conditions – such as diabetes – should be warned of the potential complications of use of such phosphodiesterase enzyme inhibitors. Tarantini A, Faraoni A, Menchini F, Lanzetta P (2012) Bilateral simultaneous nonarteritic anterior ischemic optic neuropathy after ingestion of sildenafil for erectile dysfunction. *Case Report Med* Mar 19 [Epub ahead of print]

## J SEX MED

### Albuminuria an independent risk factor for ED

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! factor	✓✓✓

**1** The authors evaluated the association between albuminuria with risk factors of erectile dysfunction (ED) in men with T2D.

**2** Participants ( $n=455$ ) undertook a questionnaire containing the Sexual Health Inventory for Men.

**3** The presence of albuminuria, adjusted for age and duration of diabetes, was significantly associated with ED (odds ratio [OR], 2.76; 95% confidence interval, 1.46–5.21); macroalbuminuria had a stronger impact than microalbuminuria (OR, 4.49 vs 2.48).

**4** The authors found that albuminuria was an important independent risk factor for ED in men with diabetes; treating albuminuria and other risk factors may play a role in the prevention or reversal of ED.

Chuang Y, Chung M, Wang P et al (2011) Albuminuria is an independent risk factor of erectile dysfunction in men with type 2 diabetes. *J Sex Med* 9: 1055–64

## J SEX MED

### Pre-menopausal women with T1D have higher frequency of FSD

Readability	✓✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

**1** The authors aimed to determine the frequency and the possible correlates of female sexual dysfunction (FSD) in a highly selected group of women with T1D.

**2** Sexual function and distress, and general health of 44 premenopausal women with

uncomplicated T1D, and 47 healthy controls, was assessed using the Female Sexual Function Index, the Female Sexual Distress Scale and the General Health Questionnaire–28.

**3** The frequency of FSD was significantly higher in those with T1D than controls (25% vs 8.5%, respectively;  $P<0.05$ ).

**4** The authors concluded that pre-menopausal women with uncomplicated T1D have significantly higher frequency of FSD when compared with healthy controls when the criterion of sexual distress is included.

Dimitropoulos K, Bargiata A, Mouzas O (2012) Sexual functioning and distress among premenopausal women with uncomplicated type 1 diabetes. *J Sex Med* 9: 1374–81