

DIABETES AND MEN

ERECTILE DYSFUNCTION

Erectile failure occurs in 30% of all diabetic men and affects 55% of those aged over 60 years. The cause is often multi-factorial. Vascular and neuropathic causes are common, but psychological factors may be partly or wholly responsible in some cases. Drugs, especially anti-hypertensive agents and statins, as well as alcohol may also be involved. Testosterone deficiency and hyper-prolactinaemia cause loss of libido and where present, the possibility of an underlying pituitary tumour should be excluded.

All diabetic men who complain of erectile dysfunction (ED) require a detailed history and examination.

History

1. Define the precise problem i.e. distinguish between the following
 - Loss of libido, which points to psychological factors or the presence of hyperprolactinaemia or hypogonadism.
 - Failure of erection (impotence)
 - Premature ejaculation
 - Failure of ejaculation
 - Painful or other conditions of the penis e.g. balanitis, phimosis or Peyronie's disease
2. What is the likely cause?
 - Differentiate between predominantly psychological and organic causes (see table)
3. How important is the problem and what are the patient's expectations of treatment?
 - A vital issue. The impact on the partner as well as on the patient should be assessed.

Table: Differential Diagnosis of Psychogenic and Organic Erectile Dysfunction

Psychogenic	Organic
• Was the onset rapid?	• Was the onset gradual?
• Is there an inconsistent response varying with time/partner?	• Is there a consistent lack of erections?
• Does the patient still get nocturnal or early morning erections?	• Have the patient's nocturnal or early morning erections stopped?
• Does the patient still respond to self-stimulation?	• Does the patient find no response to self-stimulation?
• Has the patient had an important life event that might contribute to erectile dysfunction?	• Does the patient have underlying disease which might be a contributing factor?
<i>A YES response to most questions suggests an underlying PSYCHOLOGICAL cause</i>	<i>A YES response to most questions suggests primarily ORGANIC cause and further investigations may be necessary</i>

Examination

1. General Assessment
 - Body habitus, presence of secondary sex characteristics, gynecomastia
2. Cardiovascular Disease
 - Hypertension and evidence of peripheral vascular disease
3. Neurological
 - Peripheral Neuropathy
4. Appearance of external genitalia

Investigations

The presence of underlying endocrinopathy is usually rare in clinical practice and in most cases minimal laboratory tests are required.

- If hypogonadism is suspected, testosterone. If low, repeat test at least twice on early morning samples (diurnal variation). If low concentration confirmed, refer to Endocrine Clinic for advice.
- Measure prolactin if both libido and potency reduced, especially in younger patients. If abnormal, refer for endocrine assessment.

MANAGEMENT OF ERECTILE DYSFUNCTION

1. General Measures

- Improve diabetic control
- Reduce alcohol intake
- Withdraw causative drugs where possible
- Correct associated endocrine disease where present
- Involve partner as appropriate

2. Pharmacological Treatments

- Oral preparations - first choice sildenafil; second choice tadalafil and vardenafil. n.b. all contra-indicated in patients using oral, sublingual or transdermal nitrate.
- Intra-cavernosal injection of vasoactive drugs
- Intra-urethral agents

See Lothian Joint Formulary and BNF for details of preparations

3. Vacuum Devices

These work by sucking air out of a tube into which the penis has been placed and placing a constricting ring around the base of the penis to restrict blood within the penis thus maintaining an erection. They can be useful for some men particularly in a stable relationship who are not able to take medication or have problems with needles.

4. Surgical Treatment

Implants both semirigid and inflatable via a reservoir are available if all else fails.