Non-invasive management of organic impotence

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Objective: To establish the efficacy of a vacuum device (ErecAid) in the management of organic impotence.

Design: Cohort study; questionnaire before and after a 6-month study period.

Setting: Groote Schuur Hospital, Cape Town.

Participants: A total of 19 men with organic impotence, 8 diabetic and 11 with previous pelvic surgery or radiotherapy

Intervention: Vacuum device (ErecAid, Osbon Medical Systems).

Outcome measure: Efficacy of ErecAid.

Results: Six of 8 diabetics and 6 of 11 non-diabetics reported successful intercourse, while 16 of the participants would recommend the device to others. Some difficulty with the device was experienced by 11 and only 9 described an increase in self-esteem.

Conclusion: Although some difficulties may be experienced in the use of the ErecAid, it clearly has a role to play in the management of patients with organic impotence, who ideally should be able to select their preferred form of therapy.

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Erectile dysfunction, most frequently psychogenic in nature, is commonly encountered in clinical practice, affecting approximately 10% of the adult male population.[1] However, a number of conditions, including spinal cord injuries, myelopathies and diabetes mellitus are associated with organic impotence, with 35 - 50% of diabetic men being affected.[2,3]

Increased willingness to report on sexual dysfunction, and an ageing population seeking to maintain quality of life and relationships, have resulted in considerable interest in the treatment of impotence. Real advances have been made in this area, including intracorporeal injections of papaverine and prostaglandin E_1, and prosthetic surgery. These may, however, be associated with problems such as long-term penile fibrosis with intracorporeal injections,[4] prolongation of the effect of papaverine leading to priapism, and poor response to prostaglandin E_1 in patients with disorders of

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the vascular system.[5] Explantation of 2 - 8,3% of penile prostheses is necessary secondary to infection, erosion, tissue necrosis or chronic pain.[6]

More recently, attention has turned toward reversible, non-invasive external devices which simulate natural erections by the use of vacuum suction and penile constriction. Engorgement and rigidity result from placing the flaccid penis in a custom-designed cylinder where inverse pressure is applied, rapidly manipulating blood into the vascular network of the penis; 50 - 70 ml of blood are necessary to produce tumescence sufficient for intercourse.[7] External tension is applied at the base of the organ to reduce venous outflow once penile rigidity has been obtained. The cylinder is then removed and the erection-like state is maintained long enough to permit intercourse.

This study was undertaken to evaluate the efficacy of the ErecAid (Osbon Medical Systems Ltd, Augusta, Georgia, USA) (Fig. 1) in the management of organic impotence.

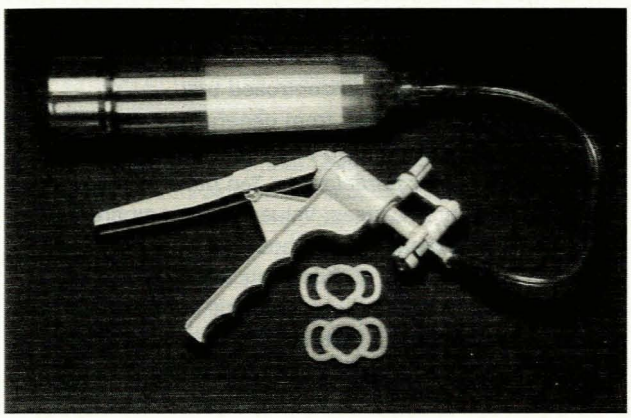

Fig. 1. The ErecAid constriction band-type vacuum device for the treatment of impotence.

Subjects and methods

Nineteen men attending the Diabetic, Radiotherapy and Stomatherapy Units of Groote Schuur Hospital took part in the study. Diabetics with symptomatic erectile dysfunction, absent nocturnal erections using the Dacomed Snap-Gauge (Minneapolis, Minnesota), normal penile Doppler studies, and normal testosterone and gonadotrophin concentrations were included. Each couple was interviewed by an experienced marital therapist who assessed the level of functioning of the marital relationship and whether the wife was interested in improving the relationship sexually. Eight diabetics (mean age 52 years, range 39 - 69), 6 insulin-dependent, and a further 11 patients (mean age 57,3 years, range 40 - 69) with renal, bladder, rectal or prostatic disease requiring surgery or radiotherapy, were included in the study.

The subjects had had failure of coitus in all attempts in the previous 3 months, and the majority had not achieved successful intercourse for 6 months - 10 years. Sixty-eight per cent had received prior management for sexual dysfunction, with no response in 77%. Papaverine and counselling were most commonly used. The subjects rated their sex drive at an average of 7/10 and their partners' at 6/10. The study was approved by the UCT Ethics Committee.

Each couple attended a full private orientation and video demonstration of the ErecAid device and had time to discuss any problems openly. Two weeks later, the couples were contacted telephonically to elucidate problems, while a formal appointment was made 6 weeks after orientation. The final assessment was made 6 months later.

Results

Successful intercourse with the ErecAid was reported by 63% of patients, 6 (75%) diabetics and 6 (55%) non-diabetics. Of these, 54% reported successful intercourse at least twice a week, 74% described their erections as 'firm' or 'hard' and 58% the quality of orgasm as 'good' or 'excellent'.

A positive effect of the device on self-image was reported in 47% of patients, while 21% reported a negative effect. The majority of participants (84%) would recommend the device to others, i.e. 88% of diabetics and 82% of non-diabetics.

Fifty-eight per cent of patients encountered difficulties with the use of the ErecAid, of whom 36% suffered pain, 64% discomfort, 21% difficulty with the removal of the device and 11% discomfort with ejaculation.

Within 24 hours of receiving the device, 53% of patients achieved proficiency in its use, while a further 37% were successful by 5 days. Erection was achieved within 3 minutes by 79% of subjects. The patients' rating of the device in the management of sexual dysfunction was 5/10, 6/10 in the diabetic group and 5/10 in the non-diabetic group.

Discussion

In this study, although the sample size was small and the majority had received previous treatment which was largely unsuccessful, the ErecAid was beneficial in a considerable proportion of patients, in agreement with previous studies.[8,9]

Notwithstanding the success rate with the ErecAid in this study and the finding that the majority of participants would recommend the device to others, fewer than 50% reported a positive influence on their self-image, in contrast with observations in previous studies.[8,10] Interestingly, the low rating of the ErecAid among our participants, considering the incidence of successful intercourse, appears to correlate with the lack of effect on self-esteem. Possible explanations for the low rating of the device include the unsatisfactory quality of orgasm, discomfort with ejaculation, and the relative coldness of the device experienced by a proportion of the subjects.

Other problems which have been reported with the use of the ErecAid include decreased skin temperature of the penis, petechiae or ecchymoses of the penile skin, odour of the device or lubricating jelly, problems with manual dexterity and the necessity for precoital application of the device.[10] There is additionally the possibility of ischaemic penile injury, particularly with prolonged use of external vacuum devices, although the degree of decreased penile bloodflow and the duration that may result in ischaemic changes are not known.

In conclusion, in the management of erectile dysfunction, it is important that patients be made aware of the various options available to them, as well as their limitations, specifically their inability to restore full sexual function. A full prior assessment of the relationship between patients and their partners combined with intermittent counselling during the course of therapy might enhance the efficacy of the therapeutic modality selected both in clinical trials and long-term management.

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tienduisendmaal geloop

hierdie klingelpaadjies
oorbekende klank
onder hemiplegiese-geheue
skemeroë toegerank

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