

## USE OF PENILE IMPLANT

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### SUMMARY

*This paper is based on a study of 4 cases of impotence in which flexi-rod penile implant was used successfully. It is felt that semi-rigid hinged penile implant should be used in such cases.*

### Introduction

Erectile impotence may have many adverse effects on the personality of a man. A penile implant may help these sexually impotent patients by making the penis sufficiently rigid for intromission.

A penile implant should be of a suitable bio-compatible material and design which should make the penis sufficiently rigid for use and it should produce long term satisfactory functional and cosmetic results without damage to urethra (Narayan and Range, 1981). Different materials like rib cartilage (Bogoras, 1936; Bergman et al., 1948), acrylic implants (Goodwin and Scott, 1952), silicone rubber prosthesis inserted between Bucks fascia and tunica albuginea (Lash et al., 1964), polyethylene devices in corpora cavernosa (Beheri, 1966), silicone prosthesis (Pearman, 1967) and inflatable prosthesis (Scott et al., 1973) have been used. But since the above mentioned criterias were not fulfilled, the results were not encouraging. A new development has been the introduction of semi-rigid penile prosthesis (Small, 1976; Finney, 1977). This type of prosthesis is more acceptable in terms of defined criterias.

### Case I

Mr. S. presented with history of failure of erection. He was married for two years though initially he was sexually potent but for the last 1½ years sexual intercourse with his wife was not possible because of failure in erection (Fig. 1).

Physical examination revealed him to be a normal man with normal penis, scrotum and testes. He was evaluated by a psychiatrist, but no cause could be established for his sexual weakness. The implant was put (Fig. 2). He had normal sexual life and after this his wife delivered a female child.

### Case II

Mr. P. had an accident 6 years ago. He sustained fracture pelvis and rupture of the urethra. He was operated and urethral passage became normal. But he noticed impotence. The penile implant was put and now he is having normal family life.

### Case III

Mr. S. attended our general surgical service with complaints of priapism for 14 days. He was operated and caverno-saphenous shunt was tried with poor results. The patient was then referred to Plastic Surgery Unit after 28 days (Fig. 3). Patient was having a painful erection of the penis. General physical examination was normal. Haemogram was normal. Blood sugar and urea were within normal limits. Urine examination showed 8 to 10 pus cells/Hpf. Implantation surgery by using Finney's prosthesis was performed (Fig. 4). Patient had pain for 3 weeks and after that it subsided. After a year he is quite satisfied with the prosthesis and is having normal sexual life.

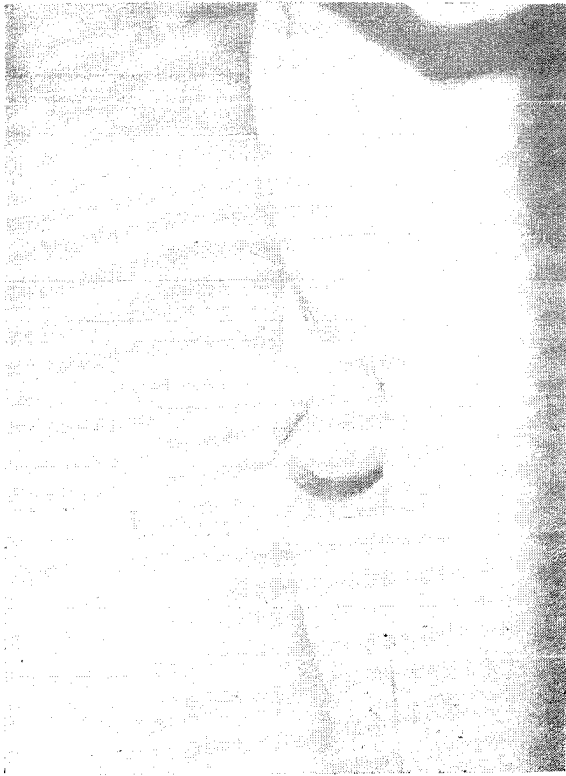


Fig. 1. Case 1 (Pre-operative)—Case of impotence (psychogenic).

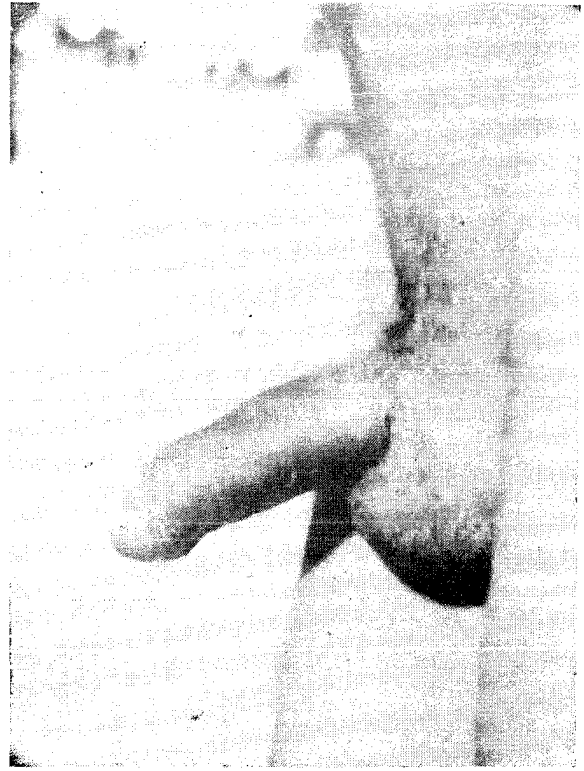


Fig. 2. Case 1 (Post-operative).

#### Case IV

Mr. K. a case of priapism was operated in a surgical unit for cavernosaphenous shunt but did not get the desired relief. This patient was subsequently referred to us. He was having a small raw area at the root of penis because of infection. With dressing it settled. A penile implant was inserted after 6 weeks. The pre-operative investigations like haemogram, urine examination, blood sugar, blood urea were normal. He has been followed for six months with satisfactory results.

#### Operative Technique

20 milliliters of povidone-iodine solution are injected into the urethra and a 14 Fr. Foley catheter is inserted. A 5 cm vertical midline incision is then made in the perineum from the base of the scrotum. The incision is carried to the bulbo-cavernous muscle which

is identified by its appearance and by palpation of the catheter. The fat is dissected from this muscle laterally as well as from the ischio-cavernous muscles deep on either side. The bulbo-cavernous muscles and the urethra are then retracted laterally and a 2 cm vertical incision is made in one ischio-cavernous muscle and the underlying tunica of the crus. Brisk bleeding occurs but may be controlled by digital pressure.

The crus is dilated proximally with a 6 millimeter Hegar dilator. Then corpus cavernosum is dilated anteriorly starting with a 10 mm Hegar dilator and carried through to 12 mm. The dilator should be felt well under the glans penis. The penile prosthesis is then placed within the corpus cavernosum so that the conical distal end is located under the glans penis dorsally (Fig. 5). The implant is held in this position while its proximal end is trimmed

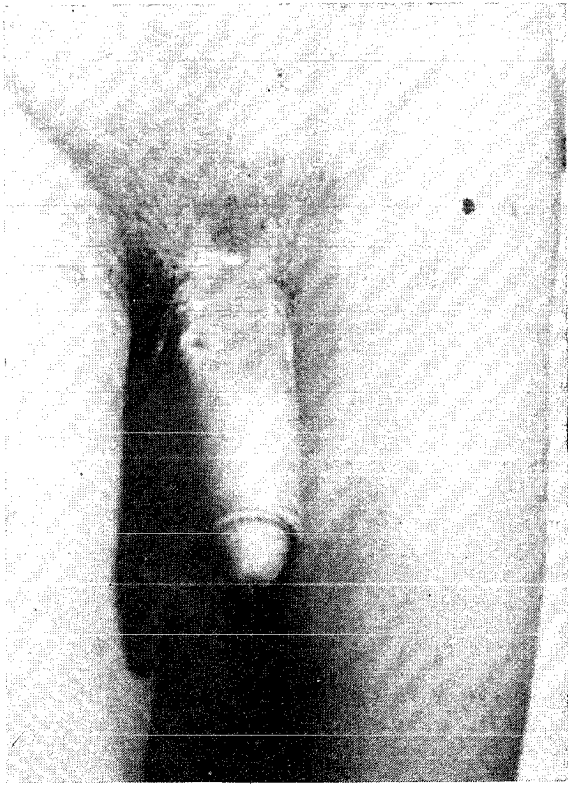


Fig. 3. Case 4 (Pre-operative)—Case of priapism.

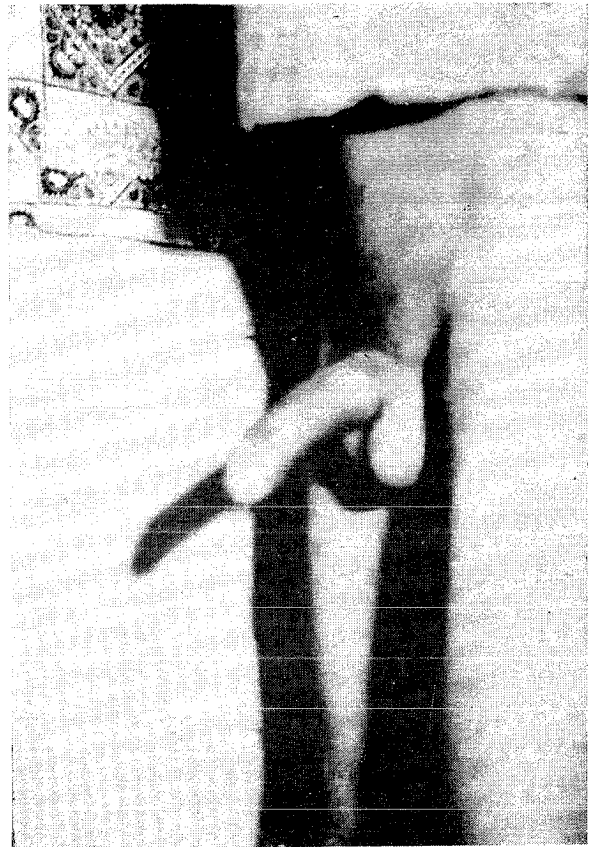


Fig. 4. Case 4 (Post-operative).



Fig. 5. Showing insertion of the penile implant.



Fig. 6. Showing closure of the wound.

according to the size needed.

It is best to cut the implant somewhat long until sufficient experience is gained. If the tail is too long, it should be trimmed an additional 5 millimeters and tried again. When the proper total length is achieved, the tail will not buckle, but will exert sufficient pressure to keep the distal implant under the glans. The incision in the corpus cavernosum is closed with closely placed interrupted 3-0 prolene suture (Fig. 6). The identical procedure is performed on the opposite side. The subcutaneous tissues are closed with interrupted 3-0 chromic catgut and the skin with 5-0 silk. Povidone-iodine ointment and a dry sterile dressing is held in place with a scrotal dressing. The Foley catheter is removed on the following day, and dressings are removed on the sixth post-operative day. Complete healing usually takes two to three

weeks and the patient is allowed to have intercourse four weeks after surgery.

#### Discussion

The etiology of impotence, though, complex in nature, is generally classified into two categories—Organic impotence and Psychogenic impotence. The organic causes include conditions like diabetes mellitus, peripheral neuropathy, spinal cord injury, arteriosclerosis, post-priapism, post-prostatectomy and pelvic perineal injury.

It is generally felt that psychogenic impotence be treated by psychiatrists and sexual counsellors. But certain patients in this category, do require penile prosthesis, who fail to respond to these conventional methods. A penile implant also helps in the management of impotent male who has a normal semen-

gram but is infertile because of his inability to penetrate vagina (Small, 1978). The case no. I in this report belongs to this category.

Priapism is an abnormally long and painful erection involving both corpora cavernosa and sparing the corpus spongiosum and glans penis. This is not associated with sexual desire. The corpora cavernosa should be decompressed as early as possible otherwise intracorporal fibrosis occurs and causes permanent damage to erection (Hinman, 1960). Treatment like ice cold packs, aspiration, ganglion blocking drug are not effective. Caverno-spongiosum shunt and caverno-saphenous shunts are effective in retaining potency in only 50 to 60% of the patients (Larocque and Cosgrove, 1974). This is because many patients do not turn up in time for treatment and shunt cannot be done at the earliest. At present the most effective form of therapy for these patients seems to

be the use of a penile implant (Thomas and Pierce, 1979). Finney successfully used implants in two patients of priapism in 1980. Small (1976) used semi-rigid penile implant in three cases of priapism with excellent results. Our patients were also satisfied and accepted the implant.

The advantages of Finney type implants are that pre-operative estimation of its length and proximal trimming of prosthesis are possible. It is semi-rigid and acts as a dilator of the space created for its insertion and allows the penis to hang down for urination (Barry, 1980). We have not encountered any complication so far, but complications like short hinge, infection, prolonged pain, ruptured septum, etc. have been reported, (Finney et al., 1980; Kaufman, 1982). Post-operative pain is expected and is not considered a complication unless it continues beyond eight weeks.

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