

Bilateral Fractures of Hydroflex Penile Prostheses : An Unusual Complication

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We report bilaterally fractured Hydroflex implants in 2 patients. One fracture was complete and three were incomplete. All the fractures occurred at the junction of the rear reservoir and the inflation chamber.

Key Words : *Hydroflex penile prosthesis, Fracture.*

INTRODUCTION

The Hydroflex prosthesis, which was introduced in 1985, gained wide acceptance and was praised for its simplicity of implantation and high patient satisfaction (Mulcahy, 1988; Kabalin and Kessler, 1989). Yet 5 years later this device was no longer marketed as some problems that needed attention came to the fore. The mechanical reliability of this device was good in early experiences (Mulcahy, 1988; Kabalin and Kessler, 1989), but recently Riehmman et al. have reported mechanical failure of 79% during a mean follow-up period of 58 months. Hitherto, one case of unilateral fracture of this device had been reported to our knowledge (Goulding, 1987). We describe our experiences with 2 patients who presented with bilateral fractures of the Hydroflex implants.

CASE REPORTS

Case 1. J.H.K, a 32-year-old man with paraplegia, presented with erectile dysfunction of 8 years duration secondary to spinal cord injury. In August 1988 two 1.1X16cm. Hydroflexes were implanted. He used the device without problem until March 1992, when he noticed that the implant on the right

side no longer functioned.

He was able to achieve coitus with the left side functioning normally, which also did not function after January 1994. He could palpate a break of the left implant just below the penile base. The patient denied trauma to the penis or abnormal use. Physical examination revealed a fracture of the left implant just below the penile shaft base. There was no local tenderness, swelling or erythema. On surgical exploration the left implant was found to be completely fractured and the right implant incompletely fractured at the junction of the rear reservoir and the inflation chamber (Fig. 1). They were replaced with two 1.1X16cm. Dynaflex implants.

Case 2. P.G.C, a 42-year-old body builder, underwent implantation of two 1.1X20cm. (19cm. cylinder and 1 cm. rear tip extender) Hydroflex prostheses for vasculogenic impotence in October 1985. Two months after implantation the right cylinder did not function any more, and 11 months after implantation the other cylinder also did not function any more. The patient denied trauma and abnormal or excessive use. Physical examination revealed no specific finding besides malfunction of both implants. On a plain film, no radiopaque fluid was shown in both prostheses, which means fluid leak of the implants. Both implants were removed and replaced with the same sized functioning Hydroflex implants. Linear fractures were noted on the removed implants equally at the junction of the rear reservoir and the inflation chamber, from where fluid leaked.

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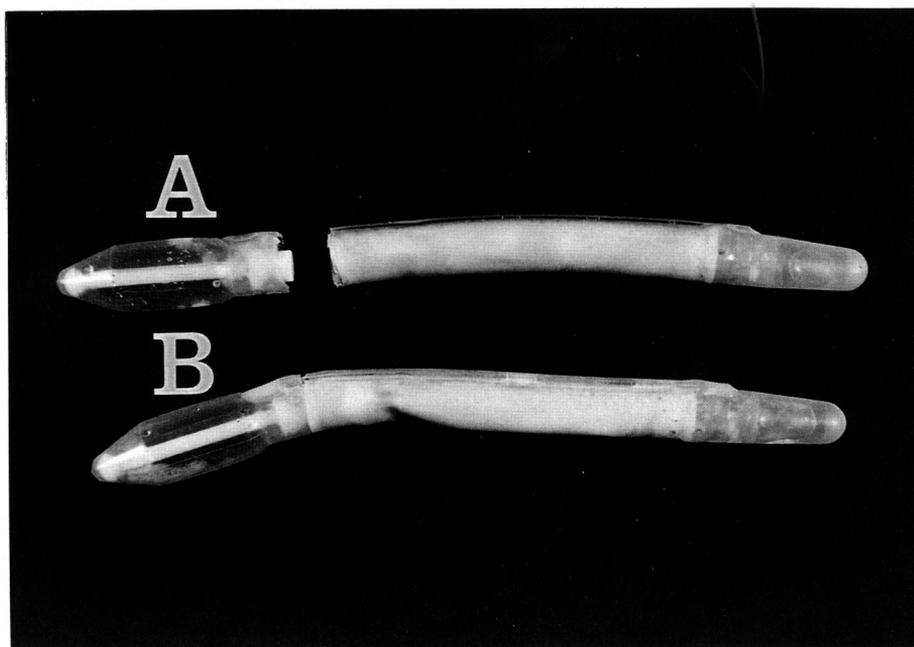


Fig. 1. Case 1. A, completely fractured left side Hydroflex implant.
B, incompletely fractured right side Hydroflex implant.

DISCUSSION

The mechanical reliability of the Hydroflex prosthesis was good in early experiences (Mulcahy, 1988; Kabalin and Kessler, 1989). However, long-term reliability was not so encouraging (Riehmman et al., 1993). A case of unilateral complete fracture of the Hydroflex implant was reported (Goulding, 1987). In our 2 patients, the fractures occurred bilaterally and equally at the junction of the rear reservoir and the inflation chamber. One fracture was complete and the other three were incomplete. These fractures are supposed to have been initiated by a fatigue tear through the outer layer at the junction, with complete separation as a result of propagation of the initial tear. Body building in one patient could facilitate the fatigue tear. The mechanical complication rate of penile prostheses would be the same for the spinal cord injury and general

populations. With respect to the other patient with paraplegia, occasional spreading of his thighs by force and unnatural posture with which he was carried on someone's back might be the cause of the fatigue tear.

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