

SURGERY

Hydraulic erectile implants in female-to-male transsexuals

The creation of a neophallus is the ultimate phase of female-to-male gender reassignment therapy. As many female-to-male transsexuals are young and sexually active, the ability to use the neophallus for sexual intercourse is usually desirable. A number of hydraulic erectile prostheses have been developed, and are widely and successfully used in male patients with impotence. However, the use of these devices in the neophallus is complicated by the fundamental differences between the graft tissue (for example, from the forearm) and the unique erectile tissue of a normal penis. Although success rates are generally considered to be poor, no large series of patients undergoing neophallus erectile implantation have been published. Piet Hoebeke and colleagues at Ghent University Hospital in Belgium have now reported their experience of 129 female-to-male transsexuals who underwent this procedure at their center between 1996 and 2007.

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The authors used a variety of one-cylinder and two-cylinder prostheses over the 11-year period; the preferred model changed over time in response to commercial availability and poor cosmetic or functional outcomes. The mean follow-up duration was 30.2 months (range 0–132 months).

When assessed, 76 (58.9%) of the 129 patients had their original prosthesis still in place, whereas 53 (41.1%) required revision (removal or replacement) of the prosthesis due to infection, erosion, dysfunction or leakage. Nine patients subsequently required a second revision, five required a third revision, and one patient underwent a fourth revision. As a result, 185 prostheses were used in total.

Overall, the infection rate was 11.9%, the protrusion rate was 8.1%, the prosthesis leak rate was 9.2%, and the dysfunction rate was 13.0%.

This is the largest retrospective series of female-to-male transsexuals undergoing erectile prosthesis surgery published to date. As such, the outcomes can only be compared with the same procedure performed in males with erectile dysfunction. The overall rate of complications in this study is higher than that seen in male patients; however, this can be mostly explained by differences between the neophallus and normal penile tissue. Although the data in this paper preclude a meaningful comparison between the different prostheses, the authors suggest that two-piece devices seem to be preferable to three-piece devices.

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Original article Hoebeke, P.B. *et al.* Erectile implants in female-to-male transsexuals: our experience in 129 patients. *Eur. Urol.* 57, 334–341 (2010)