Phalloplasty and urethroplasty in a boy with penile agenesis

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Phalloplasty and urethroplasty in a boy with penile agenesis

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Abstract  Objective: New concepts in ambiguous genitalia have questioned the strategy of female gender reassignment in cases of penile agenesis. Hence, we present a video of the construction of a phallus according to the De Castro technique as an alternative approach for this devastating condition.

Methods: A 12-year-old boy with congenital penile agenesis and posterior urethra emerging in the distal rectum was selected. An ASTRA approach was used and a phallus was constructed with a skin flap from the abdominal wall, tubularized to produce a phallic appearance. A buccal mucosa graft was tubularized to create the new urethra.

Results: Immediate outcome was excellent. Partial dehiscence of the dorsal urethral sutures occurred and the patient started voiding through a scrotal urethrostomy at 9 months postoperatively. Phalloplasty provided an adequate male appearance with a good cosmetic aspect.

Conclusion: The technique is a feasible alternative. A procedure in 2 stages by first creating the neourethra at a later date might be an interesting option to try to avoid the urethral complications observed. Long-term follow-up is however necessary to confirm the initial results.

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Introduction

Penile agenesis is a rare but complex male genitalia abnormality [1]. The preferred approach in the past was female gender reassignment because the construction of a functioning penis in children was not considered possible [2]. Clinical observation and new concepts in ambiguous genitalia have questioned this strategy, and opened the possibility for a cosmetic repair in children, enabling satisfactory psychological development and future pros thesis implantation at puberty [3]. Hence, we present a video of a patient treated according to the De Castro approach in which the phallus was constructed with a skin flap from the abdominal wall [4].

Supplementary video related to this article can be found at http://dx.doi.org/10.1016/j.jpurol.2012.09.001.

Method

A 12-year-old boy with congenital penile agenesis and posterior urethra emerging in the distal rectum was selected. An ASTRA approach enabled careful urethral isolation. A skin flap was produced from the inferior abdominal wall keeping its vascularization in the suprapubic area, mobilized with the adipose tissue from the aponeurosis. A 16 cm buccal mucosa graft obtained from the lower lip and cheek was tubularized over a urethral catheter to create the new urethra, which was anastomosed to the posterior urethral stump. The distal part of the new urethra was anchored to the distal border of the skin flap to create the urethral meatus. Tubularization of the flap produced a phallic appearance and the new phallus was completed creating a coronal like line.

Results and conclusion

The patient had an uneventful postoperative course and immediate outcome was excellent. A VCUG was obtained at 3 weeks postoperatively and the patient started voiding through the new urethra. Unfortunately, a partial dehiscence of the dorsal urethral sutures occurred and he was voiding through a scrotal urethrostomy at 9 months postoperatively. Phalloplasty provided an adequate male appearance with a good cosmetic aspect. Considering that opposite gender should not be assigned in patients affected by penile agenesis, we believe that the De Castro technique is an alternative approach for this devastating condition, and is justified by social and psychological concerns [4,5]. A procedure in 2 stages by first creating a perineal urethrostomy and a neourethra at a later date might be an interesting option to try to avoid the urethral complications observed. Long-term follow-up is however necessary to confirm the excellent initial results.

Conflict of interest

None.

Funding

None.

Ethical approval

This study complies with the policy of the journal on ethical consent and subjects gave informed consent to the work.

References