Congenital Megaprepuce: An Unknown Pathology

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Keypoints

What is known:

- Megaprepuce is a unique entity of a buried penis characterized by excessive redundancy of the inner preputial layer over a penis with a normal shaft and glans.

What is added:

- The diagnosis of megaprepuce is based on an adequate physical examination without the need for additional testing. Despite the narrow preputial orifice, it is very important not to confuse megaprepuce with phimosis, since the surgical approach is very different in both cases. Surgical correction is necessary at diagnosis, regardless of age.
- The misrecognition of this entity can lead to misdiagnosis, underdiagnosis, and inappropriate management.

Introduction

A 7-month-old male was admitted to our emergency department with difficulty in voiding and a marked ballooning of the foreskin. Upon examination, the child had severe phimosis and a buried penis with a large amount of trapped urine that was dribbling continually (Fig. 1). He required manual expression of stagnant urine to alleviate his discomfort.

The diagnosis of megaprepuce was established, and corrective surgery was conducted four months later, which included excision of excess preputial skin, penile reconstruction, and checking for the presence of curvature and scrotoplasty. The aesthetic outcome was excellent (Fig 2).

Megaprepuce patients typically present between 3 and 18 months of age, usually with severe pooling of urine in the huge reservoir caused by the megaprepuce during voiding. Cloudy or foul-smelling urine is more common than febrile urinary infections.[1]

The diagnosis of megaprepuce is based on an adequate physical examination without the need for additional testing.[2-4]

In megaprepuce, standard circumcision is formally contraindicated, since part of the excess preputial mucosa is required to cover the ventral skin defect of the penis.[1,5,6]

Several techniques have been described, but there is still no gold-standard.[1,6] The repair includes the removal of the stenotic ring, excision of redundant inner preputial skin, and anchoring of the skin to Buck fascia to rebuild the penopubic and penoscrotal angle.[1,5,6]

Despite similarities in surgical principles, variations in the coverage of the penile shaft define the basic differences in these techniques. Surgical procedures for managing megaprepuce can be broadly classified into single-stage or two-stage approaches.[1]

Aesthetic and functional results are usually satisfactory. Complications following megaprepuce correction are minimal (local edema, hematoma, suture dehiscence, and poor cosmetic result) with only a minority requiring redo-surgery.[1,6] The long-term outcome of any surgical correction is still not available in terms of cosmesis and the possible presence of curvature. However, annual follow-up is advisable until the age of 4-6 years to decide about the necessity of further surgeries.[1]

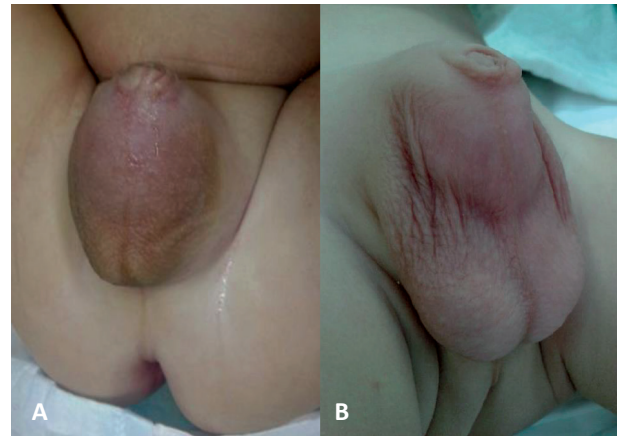

Figure 1. Phimosis and buried penis with trapped urine and a continual urine dribbling.

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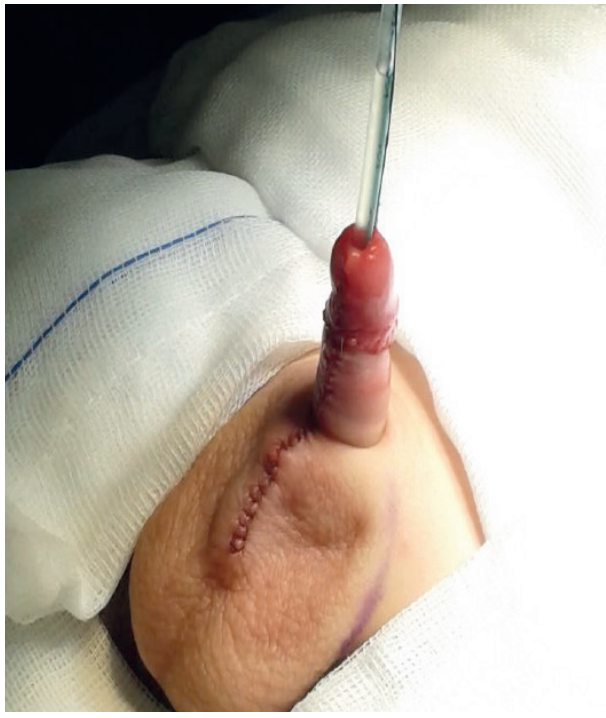

Figure 2. Appearance after surgery.

Keywords: Infant; Penis/abnormalities; Penis/surgery; Urination Disorders

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

Consent for publication

Consent for publication was obtained.

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