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Case Report

Giant Para-Urethral Epidermoid Cyst

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Abstract

Congenital para-urethral cyst is a rare pathology especially in male infants. We report a large cyst in a 40-days-old infant who was referred suspecting a scrotal tumor. This scrotal mass was present since birth and progressively increased in size to reach 15 x 10 cm. It was associated with dysuria. Attempts at urethral probing were unsuccessful and needle aspiration of the mass yielded a clear liquid. Perineal ultrasound showed a cyst with solid components. The cyst was excised en-block separating its attachment to the prostatic urethra. The postoperative course and short term follow-up were uneventful. Histopathology confirmed it as a benign epidermoid cyst.

INTRODUCTION

Para-urethral cysts are rare in children.[1,2,3] It is commonly reported to arise from the Skene glands of females.[3] In males, it mainly occurs in adolescents and adults, and is secondary to prostatic pathology.[4] The congenital form in infants is uncommon. We report one such newborn with huge para-urethral cyst.

CASE REPORT

A 40-day-old infant was referred to the pediatric emergency department because of a suspected scrotal tumor. The voluminous scrotal mass was present since birth. It was associated with dysuria. It was large at birth and continued to increase in volume aggravating dysuria. His perinatal period was unremarkable.

On admission, he was in good general condition, weighing 5kg. Hyper-pigmentation of the inner

side of the thighs was observed. The scrotal mass of about 15 x 10 cm was found extending onto the penis (Fig.1) and the mass was soft and painless.

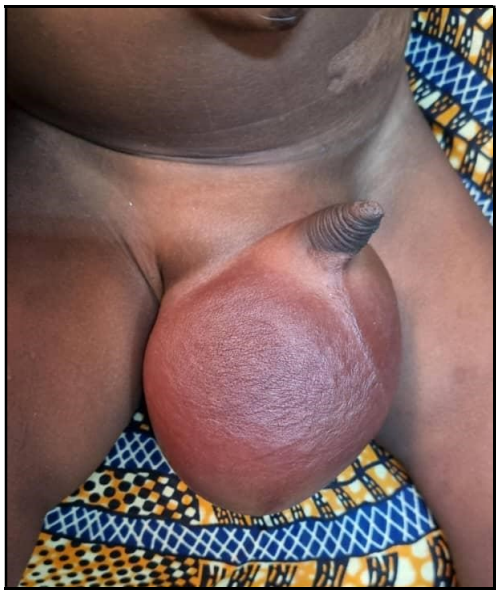

Fig 1. *Voluminous para-urethral cyst*

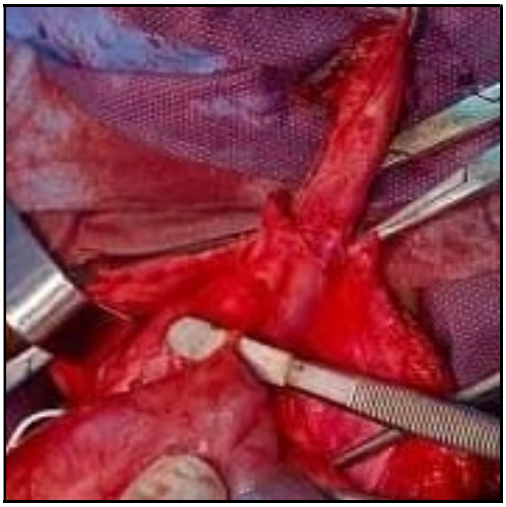

Fig 2. *Pedunculated epidermoid cyst arising from the membranous urethra*

Attempts of urethral probing were unsuccessful and needle aspiration of the mass yielded clear liquid. Cyst or urethral duplication was considered in the differential diagnosis. Ultrasonography revealed a mixed cyst with solid areas. Serum level of beta-human chorionic gonadotropin hormone (0.1µmol/l), serum creatinine (10µmol/l), leukocyte count (10800/mm^3) and hemoglobin (9g/dl) were within normal limits.

Surgery was performed under general anesthesia. By an anterior perineal approach, sparing the skin for the reconstruction of the penis and scrotum, the cyst was mobilized en block to its root. The cyst attached to the membranous urethra by a pedicle was excised. The scrotum and the penis were reconstructed with circumcision. (Fig.3) On follow-up after 2 months of operation, he was healthy. Histopathology was benign epidermoid cyst.

Fig 3. *Image of the reconstructed genitalia*

DISCUSSION

Congenital para-urethral cyst, is a rare condition, especially in boys.[1,2] It may present as a mass lesion or as bladder outlet obstruction. Urethral compression may result in urinary tract infection, urolithiasis, or even renal failure, indicating the potential seriousness of this pathology.[1,2,5] In our patient, the cyst appears to have an atretic communication with the posterior urethra. It was causing partial urethral obstruction although renal function was preserved.

The most common type of para-urethral cyst is meatal cysts. It is seen in adolescence and its presentation is delayed by asymptomatic nature and small size.[2] Our patient falls on the other extreme end of the spectrum of para-urethral cyst.

Our patient presented early because of the anatomical proximity of the cyst to the posterior urethra, its huge size and urethral compression effect. The proximal location (penoscrotal) can be misleading. Because of its huge size, a scrotal tumor was suspected. This was excluded by normal levels of tumor markers and by the cystic nature of the mass. Sub-prostatic location and fibrous pedicle connected with the urethra were also against the features of residual Mullerian cyst.[6] The diagnosis of cystic urethral duplication can be excluded only after histopathology.

Surgical operation of this huge para-urethral cyst is justified by the volume of the cyst and the degree of compression on the urethra that could have long-term repercussion on the upper urinary tract. Operative procedure consisted of complete excision of the cyst along with excision of the overlying excess skin. Treatment options vary according to the clinical presentation and histology, ranging from simple cyst puncture to mutilating surgery.[7] Para-urethral cysts have recurrence rate of about 3%.[7] Complete excision prevents the risk of recurrence.[1,2,7] Epidermoid cyst, although a benign tumor, has a risk of malignant transformation (squamous cell carcinoma) in 2% of patients.[7]

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