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Posterior Urethral Valves with Down's Syndrome presenting as Scrotal Urinary Sinuses

A one and a half year old male was brought to us with bilateral anterior scrotal sinuses of one month duration (*Fig. 1*). The sinuses were draining clear urine. The child had earlier presented to another hospital with fever and bilateral inflamed scrotal swellings. This was thought to be a scrotal abscess and was drained. Initially it drained pus but subsequently scrotal sinuses were formed which drained clear urine intermittently. The child was dysmorphic and had features of Down's syndrome. He was well hydrated and the bladder was not palpable at the time of examination. The parents felt that the child had normal urinary stream. There was no history of antenatal oligohydramnios. Biochemical renal functions were normal. Ultrasound examination of the urinary tract did not reveal any abnormality. Micturating cysto-urethrogram showed a dilated posterior urethra suggestive of posterior urethral valves. Cystoscopy showed a hugely dilated posterior urethra. Large openings of the ejaculatory ducts were seen opening above the semilunar valves located below the Veru in the posterior urethra. Trans-urethral fulguration of valves was done at 5,7 and 12 O'clock position. The scrotal sinuses healed in a weeks' time and the child is well and having good urinary stream

after four years. His biochemical renal functions are normal. However there is mental retardation due to Down's syndrome.

Posterior urethral valves (PUV) present with varying severity and grades of obstruction to the urinary tract. This unusual presentation of PUV as non healing scrotal sinuses after epididymo-orchitis has not been reported earlier. Association of PUV with Down's syndrome is also rare though reported(1). Epididymo-orchitis is caused by retrograde flow of infected urine through the ejaculatory ducts. The mechanism of retrograde flow of urinary stream into the testes may be explained as follows. The severe

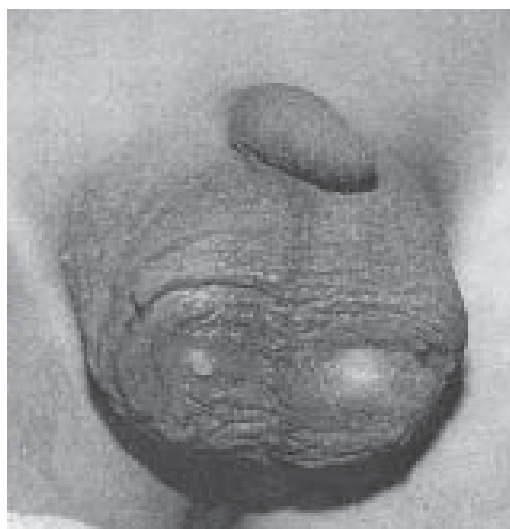


Fig. 1. Urinary leak from scrotal sinus.

attenuation of prostatic tissue seen in congenital obstructions leads to loss of obliquity of the normal ejaculatory ducts as they enter the posterior urethra. Associated distal obstruction to the flow of urine may aid in the urethro-ejaculatory reflux of urine. If the urine is infected, this precipitates epididymo-orchitis as it happened in the index case. However this reflux must be very unusual as epididymo-orchitis is a rare association in PUV.

Epididymo-orchitis is uncommon in children and is indicative of an underlying abnormality of the urinary tract, usually a pathological connection between the urinary system and the genital duct system or the bowel(2,3). Any pre-pubertal child with epididymitis merits a complete urological evaluation including urine culture, voiding cysto-urethrography and excretory urography. Surgically treatable conditions ectopic ureters opening into seminal ducts, ectopic vasal insertion into the bladder, and recto- urethral fistulas have been picked up on screening

children of epididymo-orchitis. Hence pediatricians encountering a child with epididymo-orchitis must exclude underlying surgical problems in the baby which are treatable(2,3).

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Bisphosphonate Therapy in Polyostotic Fibrous Dysplasia

I read with interest the article by Khadilkar, *et al.*(1), reporting their experience of treating a case of polyostotic fibrous dysplasia (PFD) with oral alendronate resulting in an improvement in bone mineral density (BMD) and a marked reduction in bone pain. However, I would like to make certain observations.

Firstly, the indications for using

bisphosphonates in PFD have not been specified. Currently, bisphosphonates are recommended for symptomatic cases such as those with bone pain or recent fractures(2). The current evidence does not favor the use of bisphosphonates in asymptomatic patients as this therapy does not lead to refilling of dysplastic lesions in children and adolescents as opposed to adults(3). Also, it needs to be emphasized that treatment needs to be continued for a long period, such as a minimum of 18-24 months, before a significant improvement is observed.

Authors of the current paper propose that