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Acquired Urethral Diverticulum In A Neonate- A Rare Case Report

Authors

Dr Aniruddha Kulkarni¹, Dr Md Ashfaque Tinmaswala², Dr Shubhangi Shetkar³, Dr Sanket Kasliwal⁴, Dr Amer Momin⁵, Dr. Anjali Gade⁶

¹Professor, ³Consultant Radiologist, ^{2,4,5,6}Resident- Department Of Radiology- Tapadia Diagnostic Centre
Bansilal Nagar Aurangabad (Maharashtra)- India

Corresponding Author

Dr Aniruddha Kulkarni

Professor, Department Of Radiology- Tapadia Diagnostic Centre Bansilal Nagar Aurangabad (Maharashtra)- India

ABSTRACT

In infancy the urethral diverticulum is usually congenital. It's also more common in females. The occurrence of acquired urethral diverticulum in males that too in infancy is a rare occurrence. Nonetheless its possibility should be kept in mind when dealing with patients presenting with signs and symptoms consistent with it especially if there is history of catheterisation. Here we present a case of acquired urethral diverticulum who presented with haematuria on D16 of life. Retrograde urethrogram showed fusiform dilatation of anterior urethra. Given the history of traumatic catheterization it was labelled as acquired urethral diverticulum. Baby was managed conservatively by suprapubic catheterisation due to presence of haemodynamic instability secondary to hypoxic ischaemic encephalopathy.

Key Words: Acquired anterior urethral diverticulum, Neonate, traumatic catheterization, retrograde urethrogram.

INTRODUCTION

Sac-like out pouching of urethral mucosa is called urethral diverticulum. Depending upon location it's divided into anterior or posterior. It can also be divided into congenital and acquired depending upon whether it is present since birth or acquired in post natal life. Congenital anterior urethral diverticulum is an uncommon condition which is further divided into saccular and globular types [1]. Acquired urethral diverticulum is more commonly seen in females and is usually rare in males and should be considered when there is history of recurrent urinary tract infection, difficulty in micturition, history of trauma or catheterization [2]. We here report a case of a neonate who presented on D16 of life with history of haematuria. He was diagnosed to be having urethral diverticulum. As there was history of unsuccessful attempts at catheterization this urethral diverticulum was probably acquired anterior urethral diverticulum.

CASE REPORT:

The baby was a preterm male child delivered by normal vaginal delivery. There was a history of birth asphyxia and the baby was admitted in NICU in view of Hypoxic ischemic

encephalopathy. On D4 of life baby developed acute renal failure and catheterization was attempted as part of management of acute renal failure. Attempts to catheterize the baby were unsuccessful and the baby developed haematuria and hence the procedure was abandoned and suprapubic catheterization was done. Later the baby was referred to us as part of evaluation of haematuria.



Figure 1 - Retrograde urethrogram showing saccular dilatation of urethra s/o urethral diverticulum.

On retrograde urethrogram distal part of anterior urethra showed remarkable fusiform dilatation without periurethral leak. Sequential films could demonstrate further passage of contrast through normal remaining anterior urethra to bladder. Given the history of trauma to urethra during failed

attempts at catheterization this was labelled a case of acquired anterior urethral diverticulum.

DISCUSSION:

The urethral diverticulum is an uncommon anomaly involving urethra. It is uncommon in males and is rarely reported in infants. The etiology of acquired urethral diverticulum is trauma, catheterisation, surgeries for anorectal malformations [3] and anterior urethral valves [4]. The definitive diagnosis of congenital and acquired urethral diverticulum is based upon histopathological examination after excision of diverticulum. The congenital urethral diverticulum has all three layers while acquired urethral diverticulum contains only granulation tissue and epithelium and lacks smooth muscle layer [5]. In the cases where immediate histopathological examination is not possible, like in this neonate, the history of trauma, catheterization or surgical intervention in cases of anorectal malformations may point towards acquired nature of urethral diverticulum [6]. The urethral diverticulum in adults usually presents with post void dribbling, weak stream, penoscrotal mass or recurrent urinary tract infections [7]. In infants it's difficult to diagnose this condition not only because of its rare

occurrence in infancy but also its atypical presentation. Urethral diverticulum is rarely reported in infancy and that too most of them are congenital urethral diverticulum [8]. Various procedures used to diagnose this condition are voiding cystourethography, retrograde urethrography, intravenous pyelography, CT urography and MRI [9]. Surgical excision is the only definitive treatment of urethral diverticulum [10]. There are some case reports where urethral diverticulum was managed using urethral dilatation and by endoscopic excision [11, 12].

CONCLUSION:

Though rare in infancy, Acquired urthral diverticulum should be considered as differential diagnosis in patients having signs and symptoms consistent with it especially if there is history of catheterisation.

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