Post Pyeloplasty per Urethral DJ Stent Exteriorization is Not an Uncommon Complication in Children: A Case Report

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Abstract: Pelvic ureteric junction obstruction is a common cause of hydronephrosis in children. Surgical option is Anderson hyne's pyeloplasty over DJ stent. Appropriate size of DJ stent is required to prevent devastating complication.

Keywords: Children, DJ stent, Exteriorization, Pelvic ureteric junction obstruction, Pyeloplasty

1. Introduction

Ureteral stent placement is commonlyused in paediatric urology cases. It is used in open or endoscopic urological procedure for internal drainage of upper urinary tract to the bladder [1]. Stent prevents the complications associated with ureteral obstruction and injury [2]. It is not free of complications. In paediatric patient, double J ureteral stent commonly used as trans anastomotic stent in pyeloplasty. We are reporting a case of DJ Stent exteriorized through per urethral in post pyeloplasty child.

2. Case report

A 4-year-old boy presented to outpatient department with complaints of intermittent pain abdomen in left lumbar region for one month.Antenatal ultrasound at last trimester was suggestive of left sided hydronephrosis with adequate liquors. Child was further evaluated and investigated at our department. On examination child was active, afebrile, abdomen soft, bladder was not palpable. External genitalia were normal in appearance.Routine blood and urine investigations were within normal limits. Abdominal ultrasound and Diethylenetriamine pentaacetate (DTPA) renal scanweresuggestive of left pelvic ureteric junction obstruction.Patient underwent open left side dismembered pyeloplasty. During the procedure, 3.5Fr 16cm DJ stent was placed. Post-operatively it was found to be in situ[Fig.1A]. On post-operative day 5th during removal of catheter, DJ stentexteriorized through foleys per urethra[Fig.1B].We finally removed the DJ stent and subsequentlychild voided normally. We kept child on regular follow up.



Figure 1: [A] Post operative x ray showing DJ stent in situ. [B] Clinical photo showing DJ stent protruding through meatus.

3. Discussion

Pyeloplasty in paediatric patient is safe procedure. Intra operatively double J ureteral stent commonly used as trans anastomotic stent. It is important to measure accuratesize and length of stent. The length and size of stent measured by the distance from the ureterovesical to the ureteropelvic junction or mid kidney on imaging [2]. Placement of the curl in the renal pelvis instead of the upper calyx has less risk of migration [3].Intra operatively while placing the stent from the renal pelvis during a pyeloplasty, urethral catheter should be clamped to fill the bladder. As the stent reaches the bladder reflux of urine is seen; the stent is then pushed a further 4cm (length of J loop) for a proper distal curl. This method allows placement of stent without the use of C-arm. It is followed in our department. Various methods of retrieval of migrated DJ stents have been described. Ureteroscopy with grasping forceps, helical basket, and ureteral balloon dilator tip have been described in adults[4]. Ureteroscopy and removalof migrated DJ stent may be feasible in children, but it is difficult in young children and infants due to the small anatomical calibre of the ureter. Placement of indwelling ureteral stents has become routine

Volume 12 Issue 1, January 2023 <u>www.ijsr.net</u> Licensed Under Creative Commons Attribution CC BY in the management of a variety of urinary tract disease processes. Ureteral stents may also be useful for managing conditions such as hydronephrosis, pyonephrosis and obstructive uropathy. Double pigtail stents are less likely to migrate as opposed to J loop stent. Migration can occur either way but upward migration is more common. However, in our case DJ stent exteriorized through per urethraduring removal of foleys catheter.

4. Conclusion

Pyeloplasty over DJ stent is a safe procedure when appropriate size is used. But when we used large size DJ stent in children then extra length coiled in bladder. This extra length gets adhered with foleys bulb and may leads to per urethral protrusion during catheter removal. So proper size DJ stent required to prevent such type of complication.

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