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 commonly used 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 hydropnephrosis with adequate liquor. 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 scan were suggestive 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 Foley’s catheter, DJ stent exteriorized through per urethra [Fig.1B]. We finally removed the DJ stent and subsequently child voided normally. We kept child on regular follow up.

3. Discussion

Pyeloplasty in paediatric patient is safe procedure. Intraoperatively double J ureteral stent commonly used as trans anastomotic stent. It is important to measure accurately 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]. Intraoperatively 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 4 cm (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 retrieval of migrated DJ stents have been described. It is not free of complications. In paediatric patient, double J ureteral stent commonly used as trans anastomotic stent in pyeloplasty.

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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 urethra during 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.

References