



RETAINED DJ STENT - LIFELINE OF ENDOUROLOGY, FORGOTTEN CAN BE FATAL - A CASE REPORT

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ABSTRACT Ureteral stents (Double J stents) are an integral part of Endourology practice. DJ stents have been used to establish or improve drainage in cases of extrinsic or intrinsic obstruction of urinary passage, also been placed after iatrogenic injuries to the ureter and prophylactically in complex urinary tract reconstructive surgeries. The stent related complications are primarily mechanical-stent migration, encrustation, stone formation and fragmentation. Retained Double J stents are associated with significant morbidity and mortality. Hence, it is mandatory that ureteral stent should be removed as early as possible after it has served its purpose to prevent complication and morbidity. We report a case of a patient with 10 year old retained stent which had completely encrusted.

KEYWORDS : Retained DJ Stent , DJ Stent Encrustation

INTRODUCTION:

Since its first use in 1967 by Zimskind et al, it has been widely used in urological practice for managing ureteral obstruction due to intrinsic or extrinsic causes such as stones, tumours, and fibrosis and for providing adequate internal drainage after ureteral surgery or iatrogenic injuries. However, ureteric stenting is not without complications. Hence, it is mandatory that ureteral stent should be removed as early as possible after it has served its purpose to prevent complication and morbidity. Furthermore, a forgotten stent is very frequently complicated and poses a management and legal dilemma. Retained DJ stent can be treated by combination or by single procedure of extracorporeal shockwave lithotripsy, cystolithotripsy, intra corporeal lithotripsy, percutaneous nephro-lithotomy and open surgeries for retrieval of retained double J stent.

Case Report:

We report a case of 57 year old male who was a known recurrent stone former and had undergone repeated Ureteroscopic lithotripsy and was stented post procedure at his hometown. He had lost follow up due to personal reasons and had remained with the DJ stent for ten long years. Patient had come with complaints of right flank pain on and off over the years. On physical examination, his vital signs were: temperature, 38.3°C (100.9°F); heart rate, 125 beats per minute; blood pressure, 107/52 mm Hg; and respiratory rate, 30 breaths per minute. He was in no acute distress. His abdomen was soft with bowel sounds (+), but tenderness over the right Lumbar region on palpation. No masses or bruising were noted. Blood work up were within normal limits. Renal function tests indicated a slight increase in baseline creatinine (1.6mg/dl) Urinalysis showed numerous pus cells per high-power field. Chest xray Ecg, Echo were normal. Usg abdomen and pelvis revealed retained DJ stent with calcifications over it. CT kub revealed retained DJ stent along encrustations and stone formation over the distal end of stent.

The nature of disease and complications explained to patient and attenders in their understandable language and he underwent Check URS. Intra-operative findings were in favour of retained DJ stent surrounded with encrustations and few calculi at distal portion of the stent. We used holmium laser to remove encrustations over the stent without damaging it and removed it and distal most portion with stone had to be removed separately and remaining portion of retained DJ stent removed intact (figure 1,2) Post operatively patient did well and discharged in stable condition.



Figure 1

Figure 1

Figure 1 – bowl containing extracted encrustations along with fragments of calculi along with the retained stent

Figure 2 – The extracted retained DJ stent

DISCUSSION:

The double J stent is a double-edged weapon and, though it is regularly used, not always justified. Double-J ureteral stents are commonly placed for duration of 4-12 weeks in an intend to prevent or relieve upper urinary tract obstruction and following reconstructive surgeries. Indwelling double J stents may cause irritative voiding symptoms with flank pain i.e. stent syndrome. Since then efforts have been made to avoid ureteric stent complications like encrustations and recurrent infections. Certain precautions and guidelines should be abided by for its appropriate use. The use of the double J stent should be documented (name, address, and contact information). The practice of such protocols will avoid unnecessary morbidity and, not to mention, legal problems. Endourologic management of a forgotten double J stent is well established and there is an algorithm available. However, it should be managed endoscopically only by those well trained and sufficiently advanced in endourology. In case of severe encrustations, management modalities are more complex. Many investigators have employed ESWL, URS-SE, laser-lithotripsy, PCNL, chemolysis using various chemolytic agents administered via a percutaneous nephrostomy tube, and open surgery either alone or in combination with other procedures. With widespread usage of endoscopic instruments, a tendency to use relatively noninvasive interventions has been observed. However, in the literature, frequent usage of multimodal treatment principles is remarkable. These common stent

related complications have been described as “stent syndrome”- Flank pain, frequency, urgency, suprapubic discomfort, hematuria or incontinence. The best treatment is prevention of this complication . It is always advisable to use DJ stent judiciously and to remove or replace at earliest . In a developing country like India, the patients and their relatives should be adequately counselled about the presence of a foreign body which should be removed after a specified interval at the hospital . Maintaining a stent registry with address and one or more contact number of such patients by all urologists would be extremely helpful in a situation when the patient with a stent in situ doesn't turn up at the specified time for stent removal.

CONCLUSION:

This case is being presented to highlight the pitfalls we face with one of the commonest weapon we use in our day to day armamentarium . DJ stent is a double edged item which acts as lifeline in our endourology practice and at the same time if left for a long duration ,unattended can be fatal and life threatening. As goes by the proverb ,”Prevention is better than cure” , this case highlights that we should be vigilant and careful and maintain stent registers which may help us in preventing this mishap from happening.

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