
Case Report

Uncomplicated Removal of 14 Years Forgotten Double J Ureteric Stent. A Longest Indwelling Period? – A Case Report

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ABSTRACT

Ureteric stents are being used for the last 25 years to relieve the renal obstruction. Ureteric stents are made of different biomaterials which can be retained in the human urinary system up to six months when properly indicated. Indwelling period of Double J ureteric stent in the case report is 14 years, which is possibly the

longest period ever reported. It was removed without any complication endoscopically. The stents of proper biomaterial should be used with judicious indication and should be removed or replaced according to the quality of biomaterial. Indwelling period will prolong with quality of biomaterial used.

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INTRODUCTION

For the last 25 years, ureteric stents are placed endoscopically or adjunct to open ureteric surgery to relieve or avoid obstruction of the kidneys.¹ These stents should be placed for short periods ranging from 1 to 3 months. These stents are manufactured with different biomaterials like, silicon, polyurethane etc.² Different biomaterials used for stent preparations have different complications rate. These coatings minimize the complication rate of these stents and some type of stents like silicon can be retained safely up to 06 months.³ Their prolong presence in the urinary system can cause many complications like recurrent and persistent UTI, impaction with stony encrustation, perforation, pain, urgency of urine, vesicoureteric reflux, obstruction and migration.^{4,5} Finally these are removed endoscopically either from urinary bladder transurethrally or from kidneys through percutaneous approach with or without lithotripsy.⁶

In the present case DJ stent remained in the human urinary system for 14 years.

Review of literature has revealed that this is the maximum indwelling period of retaining of Double J stents in the human urinary system without significant complications. Previously documented maximum period of retaining period of forgotten Double J stents was up to 10 years with lethal complications.⁷

CASE PRESENTATION

A 28 years old, active young man presented with hematuria and suprapubic discomfort on 01-06-06 to Department of Urology and Kidney Transplantation, Punjab Medical College Faisalabad. On history, patient told that a Double J ureteric stent was placed endoscopically by a general surgeon to relieve the obstruction in the left kidney on 12-02-1992. No other abnormality was detected on history or General Physical Examination. Plain X-ray KUB confirmed the presence of Double J ureteric stent on left side. There was mild encrustation on the vesical end of the stent. On Intravenous Urography there was good excretion of contrast material bilaterally and mild hydronephrosis on stent site (Picture 1). There were many Puss cells and RBCs in the urine

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complete examination. No bacterial growth was detected on urine culture and sensitivity test.

MANAGEMENT

This forgotten double J ureteric stent was removed endoscopically on 03-06-2006. Minimal encrustation was detected on the vesical end of Double J ureteric stent with mild edema around the left ureteric orifice. It was black in color and its lumen and holes were not patent. The renal pelvis as well as whole ureteric part of Double J stent came out intact but urinary bladder end was broken at about 4cm length (Picture 2-4) which was removed in five pieces by mild mechanical crushing of the encrustation. This stent was firm but easily breakable with mild stretch with fingers. There was no per-operative complication and plain X-ray KUB film confirmed the complete removal of the Double J stent post operatively. There was smooth recovery and patient went home next morning.

DISCUSSION

We have reviewed the literature about the maximum indwelling period of DJ ureteric stents. This literature has revealed so many complications on increasing the indwelling period of these stents. Fortunately we managed to remove successfully this 14 years forgotten DJ ureteric stent without any complication.

These stents should be made of biocompatible material with special coatings to minimise the complication rate and to increase the indwelling period of Double J stents. The patients must have sufficient knowledge about the indication of Double J stent as well as complications of forgotten stents. These stents should be placed only when their insertion is mandatory. These should be retained for shortest safe period determined by the type and quality of biomaterial used in the ureteric stents. Finally it should be placed and removed in the safe hands of urologist accordingly with regular follow-up. With the further research and advancement of technology, hopefully such a biocompatible and biodegradable material will be available, which will not need removal after insertion.

CONCLUSION

Most likely the biomaterial of Double J ureteric stents and individual body reaction to the stent material have the pivotal role in determining the rate of complications and duration of indwelling period.



Fig. 1: Showing presence of Double J stent in the Intravenous Urography (IVU) film before its removal.

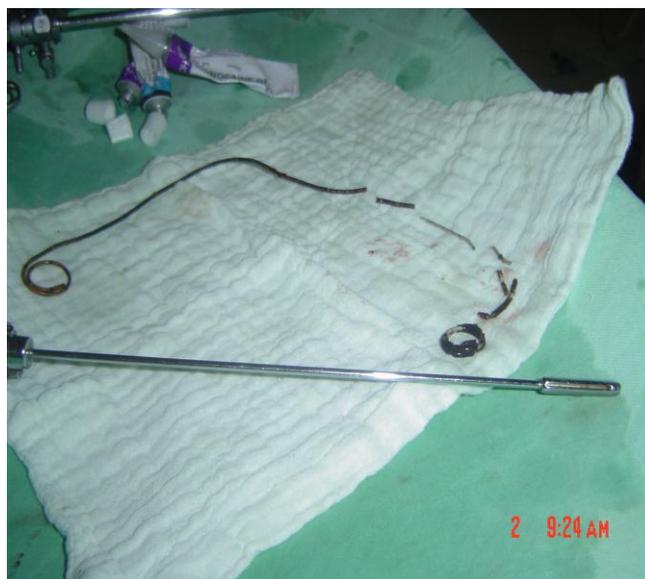


Fig 2 (a):



Fig 2 (b):

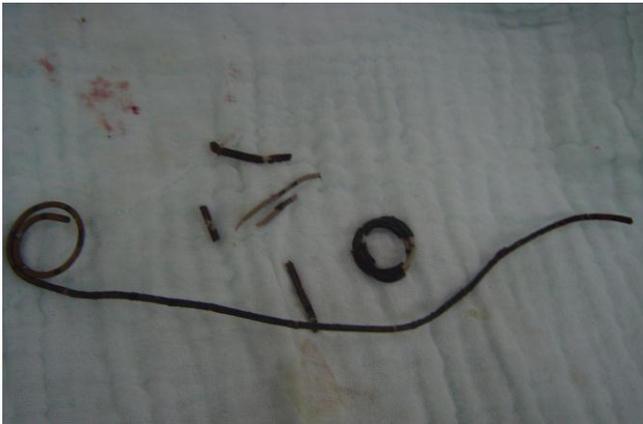


Fig 2 (c):

Fig. 2: Showing different parts of Double J stent after removal

REFERENCES

1. Singh Iqbal. Indwelling JJ stents. A current perspective and review of literature. Indian Journal of surgery 2003, 65: 405-412.
2. Carmio L, Talja M, Koivusalo A, Makisalo H, Wolf H, Ruutu M. Biocompatibility of various indwelling double J stents. J Urol.1995, 153: 494-6.

3. Kean PE, Bonner MC, Johnston SR, Zafar A and Gorman SR. Characterization of biofilm and encrustation on ureteric stents in vivo. Br J Urol 1994, 73: 687-91.
4. Damiano R, Oliva A, espisito C, DeSio M, Autorino R, D'Armiento M. Early and late complications of double pigtail ureteral stent. Urol Int 2002, 69: 136-40.
5. Patil S M, Magdum P V, Shete J S, Nerli R B and Hiremath M B. Forgotten DJ stent– A source of morbidity: is stent registry a need of the hour. Int. J Recent Sci. Res. 2015; 6:2674-2676.
6. Sabharwal S, Macaden AR, Abrol N, Mukha RP, Kekre NS. A novel computer based stent registry to prevent retained stents: Will patient directed automated short message service and letter generator help? Indian J Urol. 2014; 30(2):150-2.
7. Singh V, Sirinivastava A, Kapoor R, Kumar A. Can the complicated and forgotten indwelling ureteric stents be lethal. Int Urol Nephrol 2005; 37 (3): 541-6.

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