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Single Session Endourological Management for Bilateral Forgotten/Neglected Double J (DJ) Ureteric Stents Using Galdakao-Modified Supine Valdivia Position

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Abstract

Background: Management of forgotten/neglected DJ stent is time consuming, impairing quality of life, complicated, costly and can be lethal. We use galdakao-modified supine Valdivia position to managed bilateral forgotten/neglected DJ stent to reduce the length of operation time and complication. **Case presentation**: we treated a 33-year-old female with bilateral forgotten/neglected DJ stent. We decided to performed retrograde intrarenal surgery using semi-rigid ureteroscope for the right forgotten/neglected DJ stent and supine percutaneous nephrolithothomy under galdakao-modified supine valdivia position for the left forgotten/neglected DJ stent in a single session. Post operative course was uneventfull and the patient was discharged on the second day. **Conclusion:** Galdakao-modified valdivia position is a good patient position to perform multiple endourological safe procedure in a single session that could reduce the length of operation time and hospital stay in managing patient with bilateral forgotten/neglected DJ stent.

Subject Areas

Urology

Keywords

Galdakao-Modified Valdivia Position, Single Session, Bilateral Forgotten/Neglected DJ Stent

1. Introduction

Double J (DJ) stent is widely used in various urological procedures. The Indica-

tion of DJ stent placement includes relief of ureteral obstruction, maintanance of ureteral patency for healing after upper tract reconstruction and ureteric trauma. However, ureteric stent is not without its complication. Several frequently observed DJ stent complication are stent associated symptoms, stent migration, urinary tract infection, encrustation and forgotten/neglected stent. Forgotten/neglected stent is a complication that observed in urologic practice because of both poor patient compliance and health system issue related to patient follow up. Management of forgotten/neglected stent is time consuming, impairing quality of life, complicated, costly, and can be lethal [1] [2]. Multimodality procedure, carefull planning and patient counseling is require for managing forgotten/neglected stent [3] [4].

2. Case Report

A 33 years old female presented with burning micturition and left flank pain for the last 3 month. The patient had a history of bilateral DJ stent insertion due to bilateral ureteral iatrogenic trauma during hysterectomy one year before.

She forgot to attend follow up appointment to remove the DJ stent. In between these years there was no history of hematuria, passing stone and febrile urinary tract infection.

Extracorporeal shock wave lithotripsy (ESWL) was performed 2 month ago on the right kidney at another hospital. Physical examination reveal mild pain on fist percussion on the left flank and lower abdominal tenderness and a surgical scar on her lower abdomen. Radiography of the kidney, ureter and bladder revealed bilateral encrustated D-J stent with multiple calculus on the right distal ureter,small renal calculus and left renal calculus (**Figure 1**). Her blood count,

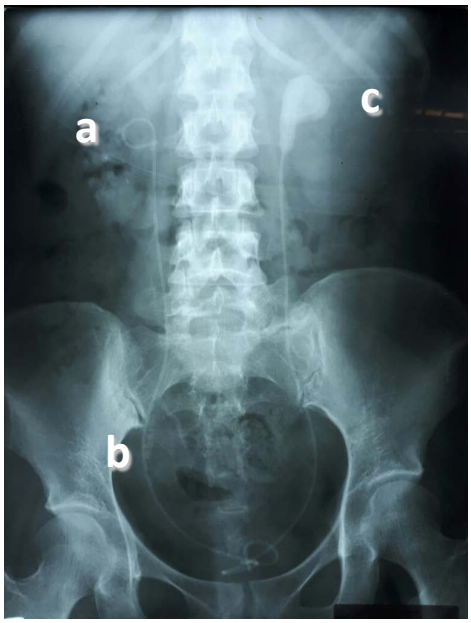


Figure 1. Pre-operation KUB. Residual stone on the right kidney post ESWL (a), multiple ureteral calculus on the right ureter (b), left pyleal calculus (c).

creatinin serum and electrolytes were normal. Urine analysis showed increased number of erithrocyte and leucocyte

The patient was placed in Galdako-modified supine Valdivia position under general anesthesia. We performed cytstoscopy and insertion of 4 Fr ureteral catheter into left ureter.

Access needle were place in the posterior inferior calyx using triangular tehnique (**Figure 2(a)**). Tract were dilated using metal dilator and a 26 FrAmplatz sheath were inserted. PCNL were performed using 24 Frnephroscope and pneumatic lithotripter. All the calculus were retracted along with the retained left DJ stent (**Figure 3(b)**). We then place a 16 Frfolley catheter into the left kidney (**Figure 2(b)**) without changing the position we then performed right ureterorenoscopy (URS) and lithotripsy of the right ureteral calculus and extraction of the retained right DJ stent (**Figure 3(a)**). We then inserted new 4.5 FrDj stent to the left and right urinary system.

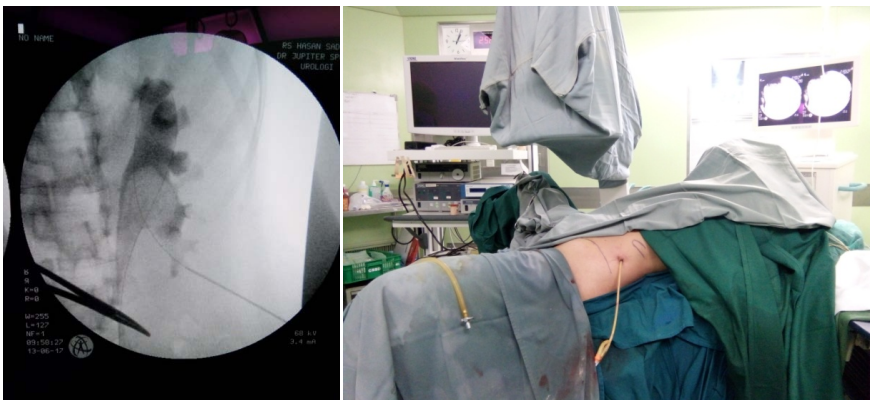
The operation time was 150 minutes and blood loss was less than 50 ml. Post operative course was uneventfull and the patient was discharged on the second day.

3. Discussion

Injury to the ureter most commonly caused by iatrogenic injury during abdominopevic surgerydue to its inconspicuous retroperitoneal location. Gynecologic surgery account for 52% - 82% Iatrogenic ureteral injuries [5]. Ureteral trauma due to endourologicial procedure has decreased in the last two decade with the advancement of uretroscope, improvement of visual optic and increasing surgeon experience [6].

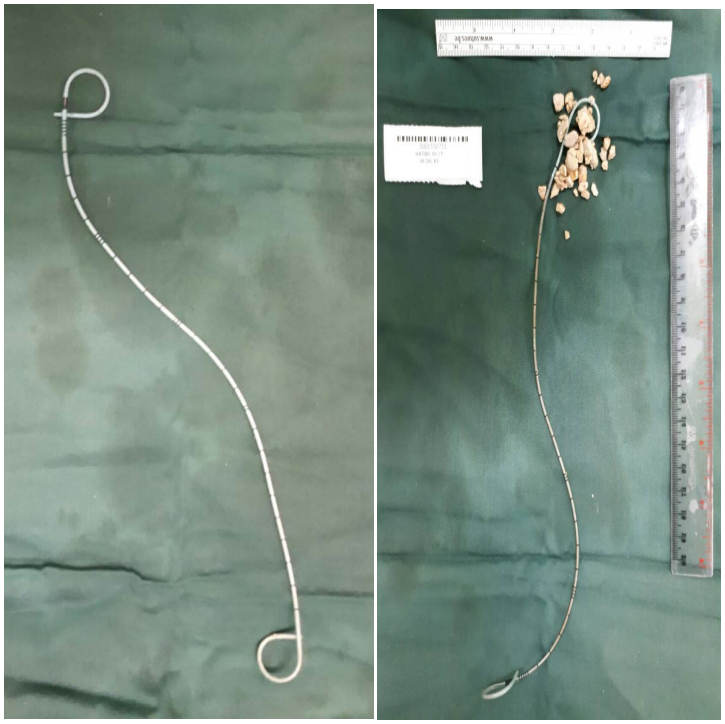
A retrospective study from Soetomo Hospital Surabaya East Java Indonesia showed that there are 20 cases of ureteral injuries during six year period. 17 (85%)of these ureteral injuries was caused by gynecologic surgery [7]. Repair of the ureter was done with DJ stent insertion to all patient in this study.

Since the development of DJ stent until now DJ stent has become an important device in urology practice. Complication may occur, however with insertion DJ



(a) (b)

Figure 2. (a) Access needle to left posterior inferior calyx; (b) 16 Fr folley catheter as left nephrostomy tube.



(a) (b)

Figure 3. (a) Right DJ stent; (b) Left DJ stent and calculus.

stent. One of the complication is encrustation that can become very challenging in forgotten/neglected DJ stent.

The cost for managing forgotten/neglected DJ stent is high including radiologic investigation,multimodality treatment and the duration of hospital stay. In our patient ESWL was already performed on the right kidney.We then planned to tackled both urteral calculi and pyelal calculi in one setting to reduce the hospital admission, the use of medication and duration of hospital stay. Under galdakao-modified valdivia position it is easy to performed retrograde intrarenal surgery for forgotten/neglected DJ stent on the right and supine percutaneous nephrolithotomy for pyeal stone and encrustated stone on the left side in a single session. Postoperative course was uneventful and the length of hospital stayed is only two days.

4. Conclusion

Galdakao-modified valdivia position is a good patient position to performed multiple endourological safe procedure in a single session that could reduce the length of operation time and hospital stay in managing patient with bilateral forgotten/neglected DJ stent.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Sancaktutar, A.A., Söylemez, H., Bozkurt, Y., *et al.* (2012) Treatment of Forgotten Ureteral Stents: How Much Does It Really Cost? A Cost Effectiveness Study in 27 Patients. *Urological Research*, **40**, 317. https://doi.org/10.1007/s00240-011-0409-3

[2] Singh, V., Srinivastava, A., Kapoor, R., *et al.* (2005) Can the Complicated Forgotten Indwelling Ureteric Stents Be Lethal? *International Urology and Nephrology*, **37**, 541. https://doi.org/10.1007/s11255-004-4704-6

[3] Rana, A.M. and Sabooh, A. (2007) Management Strategies and Results for Severely Encrusted Retained Ureteral Stents. *Journal of Endourology*, **21**, 628-632. https://doi.org/10.1089/end.2006.0250

[4] Lam, J.S. and Gupta, M. (2002) Tips and Tricks for the Management of Retained Ureteral Stents. *Journal of Endourology*, **16**, 733-741. https://doi.org/10.1089/08927790260472881

[5] Burks, F.N. and Santucci, R.A. (2014) Management of Iatrogenic Ureteral Injury. *Therapeutic Advances in Urology*, **6**, 115-124. https://doi.org/10.1177/1756287214526767

[6] Brandes, S., *et al.* (2004) Diagnosis and Management of Ureteric Injury: An Evidence-Based Analysis. *BJU International*, **94**, 277. https://doi.org/10.1111/j.1464-410X.2004.04978.x

[7] Sriyono, T. (2014) Ureteral Trauma Profile in Soetomo Hospital January 2006-December 2011. *Journal Urologi Universitas Airlangga*, **2**, 2. http://journal.unair.ac.id/ureteral-trauma-profile-in-soetomo-hospital-article-8065-media-93-category-3.html