

Case Report

Pyelolithotomy of simple right sided ectopic kidney with renal stone

Sarvjeet Meravi*, M. M. Mudgal, Naveen Kushwah

Department of Surgery, KRH GR Medical College Gwalior, Madhya Pradesh, India

Received: 16 August 2016

Revised: 24 August 2016

Accepted: 20 September 2016

*Correspondence:

Dr. Sarvjeet Meravi,

E-mail: amasindia01@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Ectopic kidney (renal ectopia) is a kidney that is not located in its usual position. It has an incidence of approximately 0.11% in general population and incidence of pelvic kidney is 0.0005% and ectopic kidney with a renal stone is rarer finding with very few reported cases. Mostly patient are asymptomatic and diagnosed incidentally, many a time it only presents as a lump during abdominal examination, patient may come with urinary complaints such as urine blockage, infection or urinary stone. Here we report a case of ectopic kidney with renal calculi and X Ray KUB showed the presence of stone in the pelvis which was later confirmed for it to be in the kidney by ultrasonography, CT and IVP which was managed by open pyelolithotomy with DJ stent placement using midline incision.

Keywords: Open pyelolithotomy, Renal ectopia, Renal stone

INTRODUCTION

Renal ectopia with calculus is a rarer finding with no specific documented incidence rate.¹ We managed a case of right ectopic renal calculi primarily by open pyelolithotomy by using abdominal incision extending mainly infraumbilical with minimal amount of trauma and bleeding with DJ stent placement.

CASE REPORT

A 35-year-old female G5 P1 A4, 45 kg weight with stable vitals came with right sided lower abdominal pain of sudden onset with no aggravating or relieving factor with nausea was referred to JA group of Hospitals. Examination showed non-distended, non-tender abdomen which was soft with bowel sounds and no abdominal mass or lump could be palpated. After control of pain, USG and X-ray KUB indicated presence of renal calculi in pelvis. IVP suggested bilateral excretory kidney with RT kidney in right side of pelvis with renal calculus with mild hydronephrosis. CT urography reveals hyperdense lesion of calcific attenuation of size 2.16x1.58

centimetres seen at pelviureteric junction and upper ureter. Using midline vertical abdominal incision retroperitoneal space was approached ureter was identified and traced upwards till renal-pelvis.

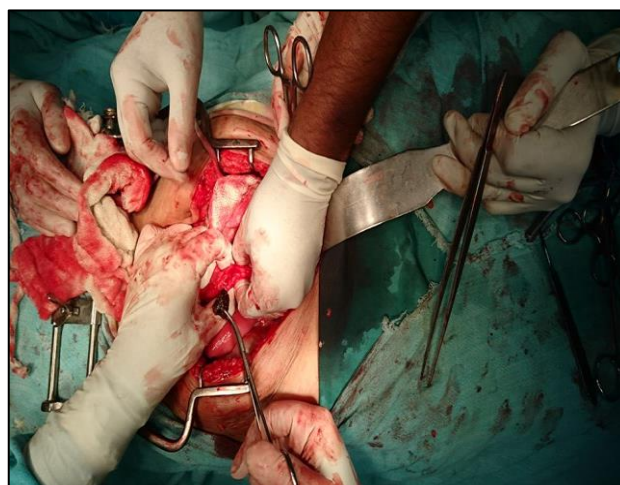


Figure 1: Stone removed from ectopic renal pelvis.

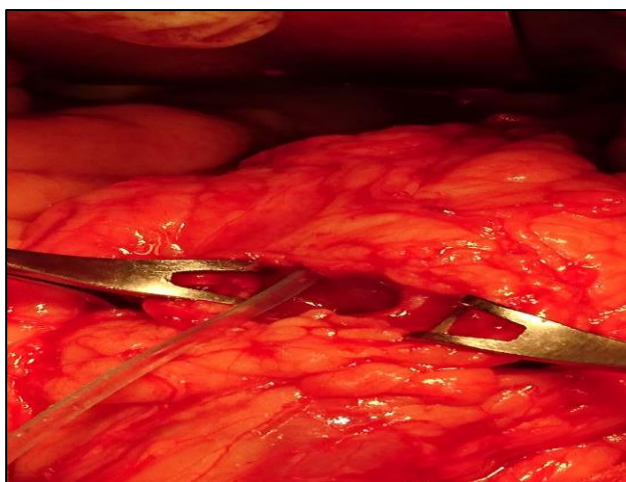


Figure 2: Catheter in ureter passing into urinary bladder.

Palpable stone was present in the renal pelvis which was opened and stone was removed, DJ stent of 5 Fr was placed and cut shortened to match the small length of ureter. DJ stent could be palpated in the bladder itself. Patient was discharged on day 8 after an X- ray KUB which showed DJ stent in-situ with an advice to review after 21 days from date of operation for DJ stent removal.

DISCUSSION

Ectopic kidney is a congenital urological anomaly.^{1,2} Renal ectopia is a rare finding and renal ectopia with renal stone is even rarer.¹ Ectopic kidney with different presentation like horseshoe shaped or duplication, abnormal insertion of ureter, rotational anomalies and different localization of kidney make the management of calculi in ectopic kidney difficult and might require different approaches but in our case the renal pelvis was anterior while vasculature was posterior so it was easy to assess stone with minimal bleeding, handling of renal pelvis with palpable stone and giving incision over it was

easy.³⁻⁵ DJ stent was removed after 21 days, X-ray KUB was performed showed stone clearance. Pathogenesis of renal stone formation might be abnormal location of kidney, kinking of ureter, urinary stasis.^{6,7} KUB and IVP showed good result in locating stones and it was easy to demarcate it comparing with pelvic bony landmarks.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Russell RCG, William NS, Bulstrode CJK. Baily & Love's short practice of surgery, 23rd edition. Arnold, London, UK. 2000;1174.
2. Aydin S, Odabas O, Yilmaz Y, Bozkurt M, Atilla MK, Onur D. A suspected case of bilateral crossed renal ectopia or bilateral jet effect. Urol Int. 1996;57(4):235-6.
3. Cranidis A, Terhorst B. Crossed renal ectopia with solitary kidney. Urol Radiol. 1982;4(1):45-6.
4. Lane V. Congenital patent urachus associated with complete (hypospadiac) duplication of urethra and solitary crossed renal ectopia. J Urol. 1982;127(5):990-1.
5. Miles BJ, Moon MR, Belville WD, Kiesling VJ. Solitary crossed renal ectopia. J Urol. 1985;133(6):1022-3.
6. Miyakita H, Matsushita K, Kawamura N. Two cases of crossed renal ectopia without fusion Hinyokika-Kyol. 1985;31(2):295-9.
7. Rosenburg HK, Snyder HM, Duckett J. Abdominal mass in a newborn: Dysplasia of crossed fused renal ectopia-ultrasonic demonstration. J Urol. 1984;131(6):1160-1.

Cite this article as: Meravi S, Mudgal MM, Kushwah N. Pyelolithotomy of simple right sided ectopic kidney with renal stone. Int Surg J 2017;4:821-2.