## **Answers to Medical Quiz**

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Answer 1.

Fig 1. Complete obstruction of the right ureter at the pelvic inlet. The lower obstructed end is narrowed and irregular in outline.

Fig 2. Pelvic ureter below the stricture segment is dilated and filled with irregular soft tissue mass.

Fig 3. Pelvic CT showing dilated right ureter. Lumen is filled with soft tissue density mass. Normal urinary bladder.

Answer 2. Ureteral Transitional Cell Carcinoma.

Primary carcinoma of the ureter is rare; it accounts for only 1% of all cancers of the upper urinary tract<sup>1</sup>. The peak prevalence of these tumours is between fifth and seventh decades and males predominate in a ratio of 3:1. Most common location is lower third of the ureter (70%). Patients usually present with haematuria or flank pain<sup>2</sup>. Excretory urography is the primary tool used in diagnosing ureteral neoplasms. It may show hydronephrosis with hydroureter and a filling defect in the ureter. When chronic obstruction causes non-function of the kidney, urography is not diagnostic. In these cases, pyelography, either retrograde or antegrade may be used. CT is useful for identification of both the intraluminal mass and extraureteral tumour extension, thereby helping to stage disease.

Pathological staging of ureteral tumours includes grades O, papilloma; A) submucosal infiltration; B) muscular invasion; C) periureteral fat invasion; and D) tumour outside the ureter, regional lymphadenopathy and distant metastasis. Metastases occur to retroperitoneal lymphnodes (34%), liver (17%), lumbar vertebrae (13%), lungs (9%) and kidneys (8%)<sup>3</sup>.

Most ureteral carcinomas are superficial; 93% are transitional cell types, 5% are squamous cell and 2% are glandular cell type<sup>4</sup>.

Proximal ureteral tumours are generally treated with total nephroureterectomy. Low grade noninvasive tumours of the distal ureter may be treated by partial ureterectomy. Segmental resections are also undertaken in cases of solitary kidney with ureteral tumour, bilateral synchronous ureteral tumours, patients with poor renal function and high risk patients. Postoperative radiation is used for advanced ureteral carcinoma.

Total nephroureterectomy was performed in our patient. Histology was transitional cell carcinoma.

## REFERENCES

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