

**Clinical Image**

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**Gross hydronephrosis secondary to pelviureteric junction structure, complicated with caliceal rupture****Assyifaa Nik Mazian\***; Siti Soraya Ab Rahman

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**Description**

A 23-year-old Myanmar male with previous history of percutaneous nephrolithotomy was presented with acute abdominal pain for 2 days. The pain was pricking in nature and started at left lumbar region and later became generalized. There was no fever, vomiting or history of trauma. The bowel and urinary output were normal. On examination, he was alert and mildly dehydrated. The vital signs were stable. Per abdomen revealed generalized guarding and tender mostly over the left lumbar region. Abdomen radiograph showed left abdominal homogeneous opacity with bowel displacement to the right. A round calculus was appreciated at the left lumbar region (Figure 1a). Urgent contrast enhanced CT abdomen revealed gross hydronephrosis with stricture at the left pelviureteric junction (Figure 1b). There was caliceal wall defect at the upper pole calyx (Figure 2a) with perirenal free fluid (Figure 2b). Patient underwent urgent ultrasound-guided left nephrostomy insertion and was discharged well.

Hydronephrosis is dilatation of the renal pelvicalyceal system due to obstruction distal to the renal pelvis. In this case, the obstruction is due to stricture secondary to previous renal surgery. The concurrent renal calculus is non obstructive. Calyceal rupture is a rare complication of obstructive uropathy [1]. A study

showed that only 1.9% caliceal rupture were caused by ureteropelvic junction obstruction [2]. In the absence of vascular or abdominal trauma, caliceal rupture can be safely managed non-operatively with resolution greater than 90% [3].

**Declarations**

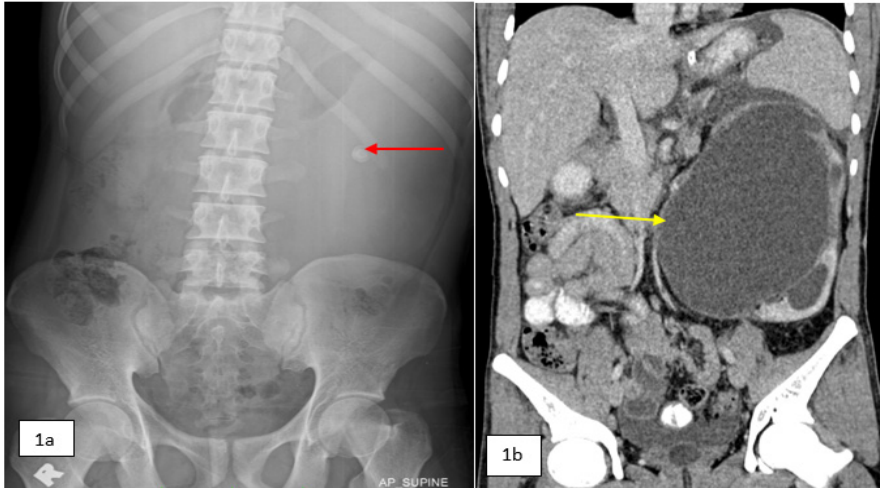
**Competing interest:** The authors have no competing interests to declare.

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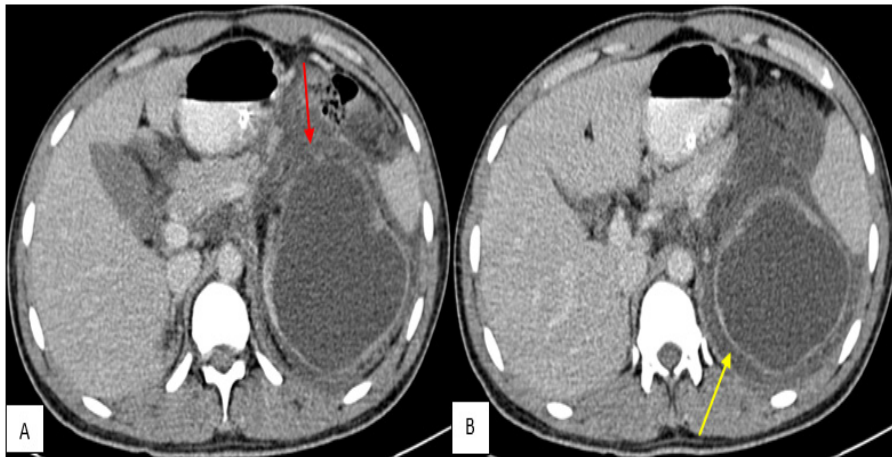
**Consent:** Informed patient consent was obtained.

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**Figure 1:** (a) Abdominal radiograph showed left sided abdominal homogenous opacity displacing the bowel gas to the right side, with left lumbar calculus (red arrow). (b) Coronal CT abdomen showed gross left hydronephrosis. A stricture noted at the pelviureteric junction (yellow arrow).



**Figure 2:** Axial CT abdomen revealed caliceal discontinuity at upper pole calyx (red arrow) (A) with free fluid at perinephric space (yellow arrow) (B).