A 62-year-old male presented with complaints of right flank discomfort for a few days. General physical examination was unremarkable. Ultrasound abdomen showed features suggestive of right-sided moderate hydronephrosis. Non-contrast computed tomography (CT) of the kidney, ureter, and bladder (KUB) region showed an enlarged right kidney, a complex cystic lesion in the upper pole showing cyst within cyst appearance (Figs 1A to C), and dilatation of lower calyces with a prominent upper ureter. These radiological features were suggestive of hydatid cyst. Hydatid serology (Echinococcus IgG enzyme immune assay) came out to be positive. Tc-99m DTPA imaging revealed a nonfunctioning right kidney and nonobstructed left kidney with good cortical function. After starting on oral albendazole, he underwent right nephrectomy with no operative complications.

Echinococcosis or hydatid disease usually occurs in sheep rearing areas with high prevalence in China, Central Asia, the Middle East, Eastern Africa, Australia, New Zealand, Alaska, and some parts of South America. This occurs most commonly in the liver followed by the lungs. Primary or isolated renal echinococcosis is a rare clinical entity occurring in about 1–5% of all patients with hydatid disease. Renal involvement is usually asymptomatic in majority of the patients while symptomatic ones can present with nonspecific complaints such as abdominal discomfort or low backache. However, a rare fraction of symptomatic patients can have a specific feature of hydatiduria, that is, presence of daughter vesicles in urine. Our patient presented with abdominal discomfort but with no hydatiduria. Imaging plays a key role in the diagnosis with characteristic CT findings as in our patient. Hydatid serology is usually falsely negative while it was positive in our patient. Treatment remains surgical with perioperative biimidazoles like albendazole or mebendazole.

References

Figs 1A to C: Non-contrast CT KUB region. (A) Coronal view showing a complex cystic lesion in the upper pole of the right kidney showing cyst within cyst appearance; (B) Axial view showing a complex cystic lesion in the upper pole of the right kidney showing cyst within cyst appearance; (C) Magnified axial view showing dimensions of the cyst.