



Isolated bilateral renal mucormycosis in an immunocompetent young male

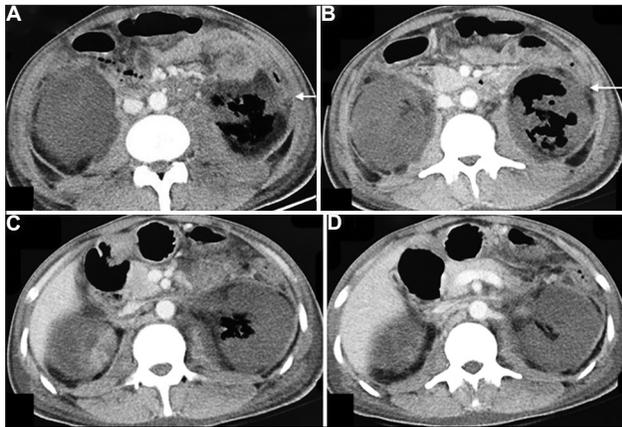


Fig 1. (A-D) Contrast-enhanced computed tomography abdomen axial images showing bilateral non-enhancing globular enlarged kidneys with perinephric inflammation and left emphysematous pyelonephritis replacing the left kidney (arrow).

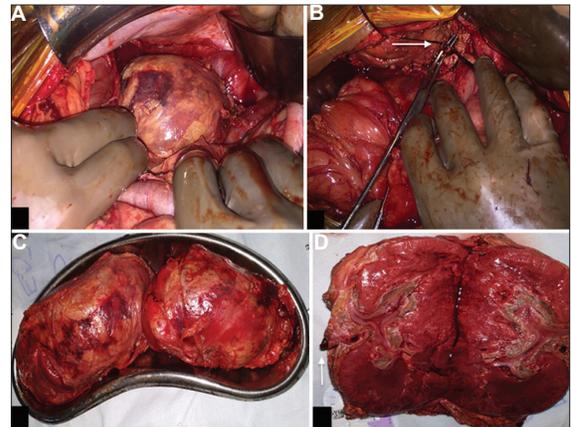


Fig 2. (A-D) Intraoperative images during bilateral nephrectomy showing dense adhesions around the kidney and thrombus visualized in the renal artery (arrow).

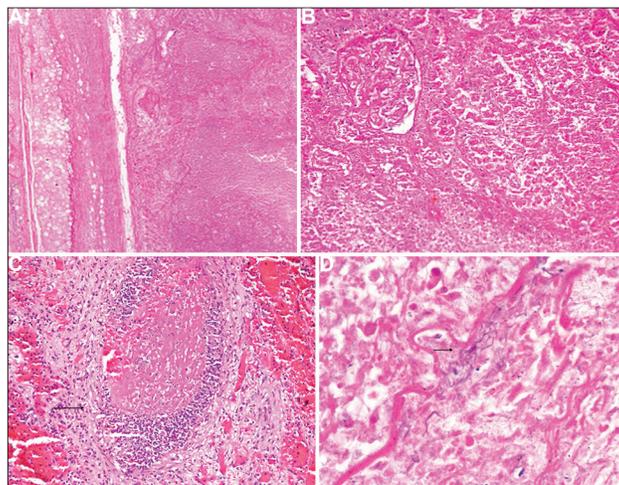


Fig 3. (A-D) Haematoxylin- and eosin-stained sections of kidney specimen showing the arterial wall with fibrin thrombi and multiple broad aseptate foldable hyphae with lack of inflammatory cells and infarction of renal parenchyma (arrow).

A 29 yr old male[†] with no comorbidities presented in the department of Urology, Postgraduate Institute of Medical Education & Research (PGIMER),

[†]Patient's consent obtained to publish clinical information and images.

Chandigarh, India, in September 2019, with complaints of left flank pain, low-grade fever and oliguria for the preceding 15 days. On examination,

the patient was alert, conscious, body mass index 19 kg/m² and vitals were stable. There was tenderness in the left hypochondriac region. Investigation revealed haemoglobin 7.6 g/dl, total leucocyte counts 24,000/ μ l, serum potassium 5.9 mEq/l, serum creatinine 7.4 mg/dl, serum pH 7.15, base excess, deficit (-18). Urine analysis showed 7-8 pus cells and fungal hyphae on peripheral smear. The patient received two sessions of haemodialysis. Intravenous amphotericin B was started empirically. Contrast-enhanced computed tomography abdomen revealed bilateral non-enhancing kidneys with Class 3 emphysematous pyelonephritis completely replacing the left kidney (Fig. 1A-D). Bilateral nephrectomy was done, and renal artery thrombosis was visualized bilaterally (Fig. 2A-D). Histopathology confirmed multiple broad aseptate hyphae with lack of inflammatory

cells and interlobular artery showing fibrin thrombi suggesting angioinvasive nature of mucormycosis (Fig. 3A-D). The patient succumbed in the post-operative period.

Acknowledgment: Authors acknowledge Dr Ujjwal Gors, department of Radiology, PGIMER, Chandigarh, for providing high-quality radiology images.

Conflicts of Interest: None.

Kumar Rajiv Ranjan & Kalpesh Parmar*
Department of Urology, Postgraduate Institute
of Medical Education & Research,
Chandigarh 160 012, India
**For correspondence:*
kalpesh010385@gmail.com

Received November 18, 2019