Images in Nephrology
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Postpartum renal cortical necrosis

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Case report

Two young females presented with postpartum acute renal failure.

A 24-year-old unsupervised primigravida developed severe lower abdominal pain and vaginal bleeding at 38 weeks gestation. She was managed by a village midwife, went into labour and delivered a stillborn male child. Bleeding continued postpartum, she did not pass urine after delivery and was referred to our Institute after 24 h. She was hypotensive and anaemic at admission, was resuscitated and given regular haemodialysis. Anuria continued beyond 2 weeks.

A contrast-enhanced computed tomography (CT) scan (Figure 1) showed a total lack of enhancement of renal cortex on both sides. The cortex was bound on the outside by a subcapsular rim of contrast (arrows) and internally by the normally enhancing medulla (shown by the asterisk). No contrast excretion was seen in the collecting system. Kidney biopsy confirmed the diagnosis of acute cortical necrosis (ACN).

The second patient was a 29-year-old lady who developed severe postpartum haemorrhage after a normal full-term vaginal delivery conducted at home. She was managed initially at a local hospital, where her urine output was noted to be <50 ml/day. She was initiated on haemodialysis. Her urine output improved slowly to ~500–700 ml/day, but she remained dialysis dependent. She came to our Institute 6 weeks after delivery. Abdominal ultrasound showed echogenic kidneys.

A non-contrast CT scan of the abdomen (Figure 2) showed peripheral rim calcification (arrows) of both kidneys, consistent with a diagnosis of ACN.

These cases highlight the utility of the CT scan in diagnosis of ACN. The classical findings described above obviate the need for performing an invasive test such as kidney biopsy.

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