

## EDITORIAL COMMENT

### CAUSES OF RENAL FORNICEAL RUPTURE

Urinary extravasation, whether seen as contrast tracking down the psoas on an IVU, or as a peri-renal fluid density on CT/KUB substantially greater than the usual degree of stranding, is an imaging feature with which all endourologists will be familiar. However, reports of this in the literature are rather sparse and generally consist of small series or even isolated case reports. Gershman and colleagues' report of 108 cases is therefore a useful review of the phenomenon. As far as is possible in a retrospective study, they have suggested criteria for the diagnosis, of which a discreet

perinephric collection in the presence of a recognised cause of ureteric obstruction is likely to be the least subjective.

This study confirms what many have previously observed, i.e. that urinary extravasation is most commonly associated with small stones at the vesico-ureteric junction: 74% of their cases were due to ureteric calculi, of which three quarters were in the lower half of the ureter, primarily at the VUJ (58.1%). This finding suggests that forniceal rupture and subsequent urinary extravasation is associated with rapid onset of obstruction. The majority of the other causes in this series (either aggressive, metastatic tumours or iatrogenic ureteric injuries) would be consistent with that theory.

What is not so clear, having noted extravasation, is when to intervene, and how. Since small distal stones tend to pass spontaneously, the clinical relevance of detecting extravasation is likely to be greatest in larger, more proximal stones. However, as the authors have stated, prospective studies will be required to determine the importance of urinary extravasation to this decision, and to establish any implications for the patient's outcome (whether intervention has been required or not).

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