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An unusual site for extramedullary haematopoiesis: surrounding the renal pelvis

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A 75-year-old man with a background of chronic kidney disease, longstanding myelofibrosis and essential thrombocythaemia presented with renal impairment. A computed tomography scan demonstrated marked soft tissue thickening of the renal pelvis and proximal ureter with an appropriately positioned ureteric stent (Figure 1).

Magnetic resonance imaging confirmed thickening of the soft tissue around the left renal pelvis and upper ureter with markedly low T1 and T2 signal (Figure 2). The identical low T1 and T2 signal from the spleen, liver and bone marrow was characteristic of haemosiderosis, which confirmed that the abnormal peri-pelvic soft tissue was extramedullary haematopoiesis.

An enclosing lesion around the renal pelvis and upper ureter is not a typical presentation of renal cell carcinoma or renal pelvis tumour (Tuite and Weiss, 1991). Lesions in the liver and spleen in a patient with myeloproliferative disease raises the suspicion of extramedullary haematopoiesis. Magnetic resonance imaging may be helpful in improving diagnostic certainty.

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Reference

Tuite MJ, Weiss SL. Ultrasound and computed tomographic appearance of extramedullary hematopoiesis encasing the renal pelvis. J Clin Ultrasound. 1991;19(4):238–240. https://doi.org/10.1002/jcu.1870190411

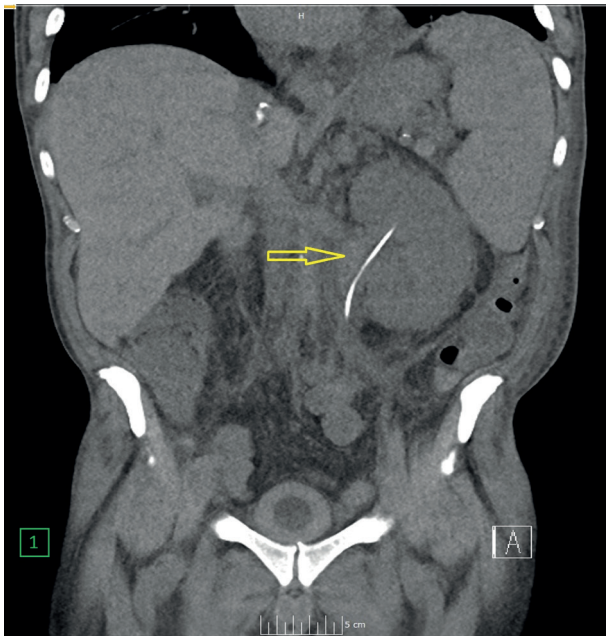

Figure 1. Coronal image of a non-contrast computed tomography scan of the abdomen which shows left renal pelvic thickening (yellow arrow).

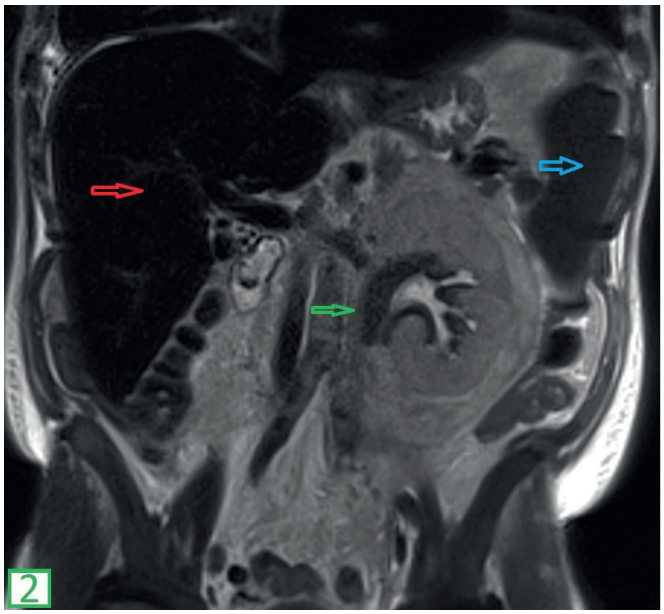

Figure 2. A coronal magnetic resonance image of the abdomen shows soft tissue of low T1 and T2 signal around left renal pelvis and upper ureter (green arrow) and shows low T1 and T2 signal of the spleen (blue arrow) and liver (red arrow).