Images in Nephrology
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A patient with autosomal dominant polycystic kidney and liver disease presenting with urinary tract infection . . . ‘Unable to see the wood for the trees’

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Case

A 64-year-old female patient with autosomal dominant polycystic kidney and liver disease (ADPKD) was admitted with fever and a highly elevated C-reactive protein (CRP). One year prior to admission she had received a renal allograft. Serum creatinine was 4.8 mg/dl. Urinalysis revealed urinary tract infection with pyuria. Citrobacter freundii was isolated from the urine. Magnetic resonance imaging and ultrasonography of the abdomen did not detect any infected cyst. Fever and a high CRP persisted for 8 days despite broad antibiotic therapy. Imaging with technetium-99m-labelled anti-granulocyte antibodies revealed a liver abscess in segment 6 with circular enhancement of the labelled leukocytes (Figure 1A and B). Knowing the localization of the infected cyst, it was easily detected by computer tomography (Figure 2A). After draining 70 ml of pus (Figure 2B), fever and the elevated CRP dropped the next day. Microbiological examination of the drained fluid revealed Escherichia coli.

Discussion

An ADPKD patient presenting with urinary tract infection, fever and an elevated CRP is highly suspicious for an infected kidney cyst [1]. Detection of infected cysts by conventional imaging can be difficult in patients with polycystic kidney disease [2]. Scintigraphy with radiolabelled granulocyte-antibodies may be helpful [3]. Especially if the infected cyst—as seen in the present case—is surprisingly located in the liver, in a patient presenting with pyuria.

Conflicts of interest statement. None declared.

References


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Fig. 1. Imaging with technetium-99 m-labelled anti-granulocyte antibodies detected in the anterior (A) and in the transaxial view (B) revealed a liver abscess in segment 6 with circular enhancement of the labelled leucocytes.

Fig. 2. Computer tomography (A) confirmed the infected liver cyst and 70 ml of pus was drained (B).