Isolated hydatid disease of the native kidney in a renal transplant recipient

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A 43-year-old male renal allograft recipient was admitted to the hospital for annual check-up. He received a cadaveric renal transplant 2 years previously. On admission his physical examination did not show any abnormalities. Abdominal ultrasonography of the patient revealed a mass lesion in the upper pole of the right native kidney in 37 × 39 × 40 mm in dimensions. The native kidneys were atrophic and had bilateral grade 3 increased echogenicity. A magnetic resonance imaging was performed which revealed a heterogeneous, complex cystic mass on the right native kidney (Figure 1). A right native nephrectomy was performed. The surgical specimen of the right kidney weighted 250 g, and measured 13 × 10 × 4 cm in dimensions. The cut surface of kidney revealed semi-solid cystic lesions contained white-gray membranous structures. Histological examination revealed the lamellary membrane of the hydatid cyst (Figure 2). The serological tests for hydatid disease were negative. He was given 600 mg/day of albendazole for 6 months. Patient was discharged in good condition after nephrectomy.

Previously 10 different parasitic infections have been reported to infect renal transplant recipients [1]. According to our case report, hydatid disease is a new parasitic infection in a renal transplant recipient. An involvement of the kidney in hydatid disease is rare with an incidence of 2–3% concerning all cases [2,3].

Fig. 1. Axial fat suppressed T2W abdominal magnetic resonance image at the level of upper pole of the kidney, showing a heterogeneous mass with lamellar cystic components in the right kidney (arrows).

Fig. 2. Histopathological appearance of the hydatid cyst. (Haematoxylin–eosin stain, original magnification 100×).
According to the stage of the hydatid disease there may be no symptoms until a space occupying tumour is found as seen in the present case. The increased risk of malignancy of the native kidney in renal allograft recipients has been well documented. Therefore, we suspected a solid kidney tumour in the right native kidney in our case. The present case is the first description of a renal transplant recipient having isolated hydatid disease in native non-functioning kidney. Serology of hydatid disease is not often positive and radiological findings can be unspecific. Renal hydatid disease should be considered in the differentiation of space occupying renal tumours, especially in countries where echinococcosis is an endemic disease.

Conflict of interest statement. None declared.

References


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