Pseudoaneurysm with severe haematuria in renal allograft after renal biopsy treated by percutaneous embolization

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Keywords: embolization; renal pseudoaneurysm; transplant biopsy

A 61-year-old lady received a cadaveric renal transplant in March 1996. On the seventh post-operative day, a renal allograft biopsy was performed under ultrasound guidance. The patient developed severe haematuria requiring a 2-U blood transfusion. Duplex scanning demonstrated a pseudoaneurysm (2.5×2.9 cm) at the upper pole of the kidney (Figure 1). Arteriography demonstrated two pseudoaneurysms arising from a cortical artery (Figure 2). These pseudoaneurysms were embolized selectively with four metal coils (Figure 3). There was no further haematuria. The renal biopsy showed evidence of acute tubular necrosis. She underwent two further uneventful renal transplant biopsies before attaining good renal function.

The majority of arteriovenous fistulae and pseudoaneurysms developing after allograft biopsy are either

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asymptomatic or show only transient symptoms [1,2]. However, life-threatening haematuria due to pseudoaneurysm, detectable by duplex scanning and angiography, has been reported following an open renal biopsy. On occasions, intra-renal arteriovenous shunting, managed successfully by embolization, has been thought to contribute to renal dysfunction and hypertension in such patients [1,2]. Superselective arterial embolization with metallic coils is effective [3].

Fig. 2. Transplant angiography demonstrating two pseudoaneurysms arising from an artery in the renal cortex.

Fig. 3. Embolization of pseudoaneurysms selectively with metal coils.

References

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