Embolisation of vascular renal tumour: an effective step to reduce peri-operative bleeding

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DESCRIPTION
We present an interesting case of a 39-year-old man, non-smoker, with no history of diabetes or hypertension, and no other significant medical or surgical condition. The patient presented to us with a history of pain in the left loin over the past 15 days. Physical examination was normal. Abdominal ultrasound revealed a highly vascular tumour of the left kidney, measuring 9 cm×10 cm. In the view of the highly vascular nature of his condition, the patient was taken for embolisation of the tumour to reduce vascularity, in an attempt to reduce the peri-operative morbidity. The pros and cons of the therapy were thoroughly discussed with the patient and his relatives, as were the possible risks involved in the procedure; the patient consented.

Renal angiogram, which was performed from the right femoral artery using a Judkin’s right (JR) catheter, confirmed the diagnosis (figure 1 and video 1). The vessels supplying the vascular tumour were selectively engaged and a selective angiogram was performed. Before injection of alcohol, a test injection with contrast was carried out to confirm the absence of reflux into the main vessel (figure 2 and video 2). Following this test dose, 2–3 mL of absolute alcohol was manually injected along with a flush injection of 2 mL of normal saline after each injection (figure 3 and video 3). A check angiogram revealed significant reduction in the blood flow to the tumour, which enabled successful surgical resection of the tumour. The patient was subsequently put on chemotherapy and has been stable during follow-up (figure 4 and video 4).

With advances in catheter interventions, there has been an increase in the number of indications of arterial embolisation in renal diseases, including renal vascular tumour, uncontrolled bleeding, intractable pain, bleeding after haemodialysis, bleeding tumours
such as angiomyolipomas and transitional cell carcinomas,\(^1\) postrenal biopsy vascular injuries,\(^2\) resistant hypertension, congenital vascular malformation and ureterocutaneous fistula.\(^3\) There are different substances that can be used for renal artery embolisation such as ethanol, sponge absorbable gelatin or polyvinyl alcohol. A 3% incidence of complications after renal artery embolisation was reported in one study and 6.5% in another study.\(^4\)

**Learning points**

▸ Renal vascular intervention is a safe and effective alternative or adjunct to surgical therapy for a variety of indications.
▸ Injection of absolute alcohol is a handy and cost-effective alternative to coil embolisation in cases of vascular tumours but requires considerable skill and expertise for accurate administration and to avoid complications.
▸ Infarction of a large volume of tissue may lead to infection and sepsicaemia, which may be avoided by prophylactic administration of antibiotics for 48 h.
Competing interests None declared.

Patient consent Obtained.

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REFERENCES