

Emergency Embolization of a Ruptured Renal Artery Aneurysm

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Renal artery aneurysm (RAA) is a rare clinical entity with an incidence rate of 0.1% [1]. Clinically most patients are asymptomatic [2], but mortality from acute rupture is 10% [3]. Conventional management includes open surgery which may, unfortunately, require a nephrectomy [4]. However, the success of endovascular interventions has led to a paradigm shift in treatment [4].

A 77-year-old medically frail woman presented to the physicians with symptomatic anemia of hemoglobin 4.6 g/L. At this time, she was hemodynamically stable. Past medical history included hypertension and hypothyroidism. Clinical examination demonstrated a soft abdomen with a palpable mass in the left flank and upper quadrant. She was transfused with 3 units of blood

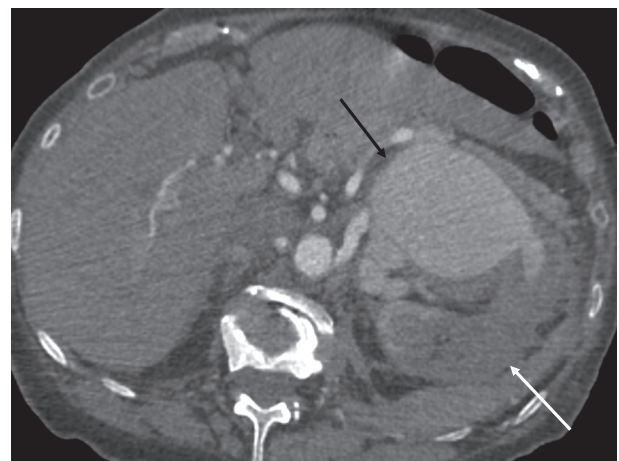


Figure 1 Computed tomography angiogram demonstrating a 7 x 6 cm ruptured left renal artery aneurysm (black arrow) associated with retroperitoneal hematoma (white arrow).

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and a CT angiogram was performed. This demonstrated a 7 × 6 cm ruptured left RAA associated with a retroperitoneal hematoma (Fig. 1).

After the CT scan, the patient became hemodynamically unstable with a Glasgow Coma Scale of 6. A decision was made to attempt endovascular control of the hemorrhage as she was unfit for a laparotomy or nephrectomy.

At digital subtraction angiography, the renal artery was selectively catheterized using a 5 Fr angiographic catheter (Sim 1, Cordis, USA) and a microcatheter (Progreat, Terumo, Japan) advanced within the sac of the aneurysm. The sac was embolized using 10 large-diameter

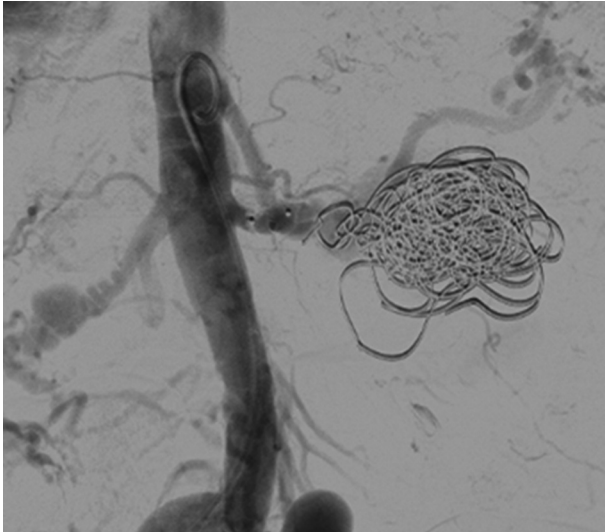


Figure 2 Digital subtraction angiography demonstrating concerto coils filling the aneurysm sac. Due to concerns over the length of the neck, an AMPLATZER plug was deployed.

detachable coils (Concerto, Medtronic, USA) and a 12 mm vascular plug (Amplatzer, Abbott, USA) deployed at the neck (Fig. 2). Post-operative duplex confirmed thrombosis of the left RAA and the patient recovered without sequelae.

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