Renal artery aneurysm with an ovarian vein thrombosis

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DESCRIPTION

A 49-year-old female patient presented with a history of post menopausal bleeding and dull aching epigastric pain of 1 month duration. Physical examination revealed anaemia and a few dilated abdominal wall veins. Gynecological examination was normal. Ultrasonography with Doppler evaluation revealed a shrunken left kidney with a large (5×3 cm) left renal artery aneurysm; right kidney was normal. A contrast-enhanced tomography revealed a 5.3×2.4×3 cm partially thrombosed left renal artery aneurysm arising 4.5 mm from the origin of the left renal artery (figure 1), early filling of left renal vein and thrombosis of the left gonadal vein in its entirety (figure 2), large dilated and thrombosed pelvic veins (figure 3), nonfunctioning shrunken left kidney (figure 4).

Renal artery aneurysms (RAA) constitute 1% of all the aneurysms.¹ On the basis of autopsy studies, the overall incidence of RAA is 0.1–0.3%.² There is no absolute predilection for side, but the right side appears to be more common, bilateral aneurysms

are observed in 15%. Almost 50% of RAA are asymptomatic. However, some produce symptoms at a later age due to an increasing size.

Pain (15%), haematuria (30%) and hypertension (55%) secondary to compression of the adjacent parenchyma or to altered blood flow within the vascular tree can occur. Many asymptomatic RAA come to light during a workup of hypertension. Spontaneous gonadal vein thrombosis especially in puerperal women have been reported, they can be asymptomatic or cause potentially catastrophic phenomena such as pulmonary embolism, sepsis or even death.^{3–4} Rare causes of this entity are pelvic inflammatory disease, pelvic malignancies, Crohn's disease and pelvic surgical procedures.^{5–6} A thick-walled, enlarged ovarian vein with rim enhancement and central hypodensity are considered the main CT imaging findings of ovarian vein thrombosis.⁷ We presented the first known case of left-sided RAA with associated thrombosis of the left ovarian vein. The cause of this association is unclear.

Figure 1 (A–D) Axial images (arterial phase) showing left renal artery aneurysm. Early filling of the left renal vein is seen.

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Figure 2 (A and B) Coronal section showing left renal artery aneurysm and thrombosed left gonadal vein. Axial images showing thrombosed gonadal vein in abdomen (C and D) and pelvis (E).

Figure 3 Coronal (A) and sagittal view (B and C) showing abdominal wall collaterals.

Figure 4 Coronal section of contrast-enhanced CT abdomen showing a shrunken non-functioning left kidney.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Learning points

- ▶ Aneurysm of the renal artery needs further characterisation with contrast CT with reconstruction.
- ▶ Thrombosis of an aneurysm can happen.
- ▶ Gonadal (ovarian vein) thrombosis can happen in patients not in the postpartum period.

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