A circumaortic left renal vein

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DESCRIPTION

A middle-aged man who underwent a thorough examination for epigastric pain was diagnosed with unresectable pancreatic cancer and referred to our department. A circumaortic left renal vein¹ was incidentally detected on abdominal CT (figures 1 and 2). The ventral branch of the left renal vein (red arrow) ran between the aorta and the superior mesenteric artery, and opened into the inferior vena cava. The dorsal branch of the left renal vein (blue arrow) ran obliquely downward between the aorta and the vertebral body, and opened into the inferior vena cava.

In cases of a circumaortic left renal vein, which is a developmental anomaly of the left renal vein, two veins arising from the left renal vein trunk surround the aorta.¹ This anomaly infrequently causes haematuria, proteinuria² and massive haemorrhage during surgery; therefore, recognition of its presence is extremely important to avoid complications.

Learning points

- In the present case, no particular clinical symptoms caused by the circumaortic left renal vein were observed. However, if haematuria or proteinuria is noted, the circumaortic left renal vein needs to be considered in the differential diagnosis.
- It is extremely important to recognise the presence of this venous anomaly before performing surgery in the retroperitoneal area (such as abdominal aorta or kidney surgery) to avoid massive haemorrhage.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Figure 1 Abdominal CT scans showing the ventral branch of the left renal vein (red arrow) running between the aorta and the superior mesenteric artery, and opening into the inferior vena cava.

Figure 2 Abdominal CT scans showing the dorsal branch of the left renal vein (blue arrow) running obliquely downward between the aorta and the vertebral body, and opening into the inferior vena cava.

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