

Mini-Incision Graft Removal in a Kidney Donor with Duplicated Inferior Vena Cava and Vein Reconstruction Using the Recipient's Great Saphenous Vein

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Dear Editor,

Duplication of the inferior vena cava (IVC) is a relatively rare but well-recognized vascular anomaly, with an incidence ranging from 0.1% to 3.5%⁽¹⁾. Most individuals are asymptomatic, and the condition is typically discovered incidentally through imaging or autopsy. This vascular anomaly has been associated with an increased likelihood of renal abnormalities. Accurate diagnosis is crucial, particularly for retroperitoneal surgeries and venous interventions⁽²⁾.

In this article, we present a case of kidney transplantation involving a donor with a duplicated IVC anomaly. The recipient, an 18-year-old male, was scheduled for preemptive transplantation from his mother due to end-stage renal disease. Preoperative imaging of the 46-year-old mother revealed a duplicated IVC (**Figure 1**). Due to the short length of the vein, a subcostal left-sided mini-lumbotomy incision was made. A circular vein graft was harvested from the recipient's left foot saphenous vein and anastomosed to the renal vein (**Figure 2**). The postoperative course was uneventful, and the recipient's serum creatinine was 1.3 mg/dL in the first postoperative month, down from 10.7 mg/dL preoperatively.

This case underscores the significance of recognizing vascular anomalies such as IVC duplication in live kidney donors. Early identification through preoperative imaging enables necessary adjustments to the surgical technique, as demonstrated here. There are a few examples of cases in the literature where kidney transplantation was performed from living individuals with duplicate IVC^(3,4). IVC duplication should not be regarded as a contraindication for kidney donation, but rather as a manageable variation with appropriate planning.

The patient provided informed consent for the publication of their medical information and treatment details. All efforts were made to maintain patient confidentiality, in line with institutional ethical standards.

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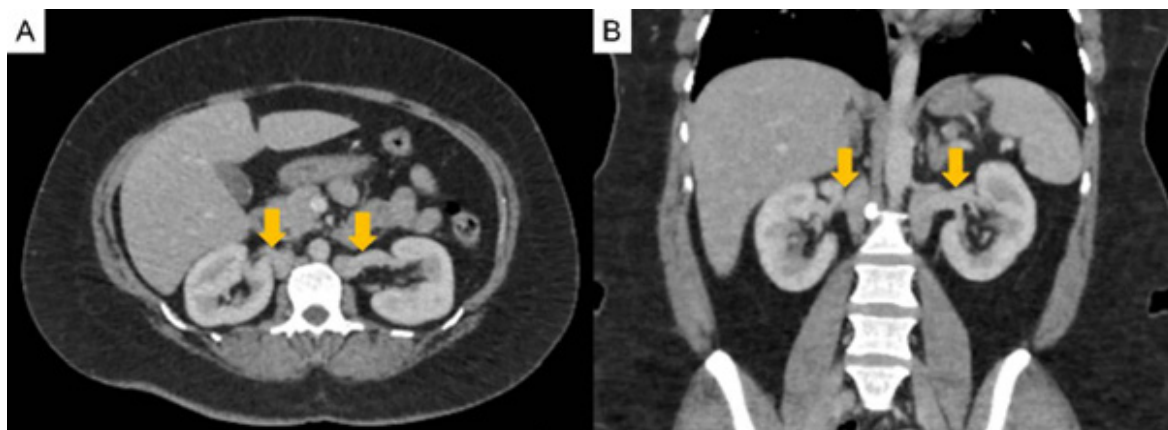


Figure 1. Duplicated inferior vena cava in axial (A) and coronal (B) sections of computed tomography.

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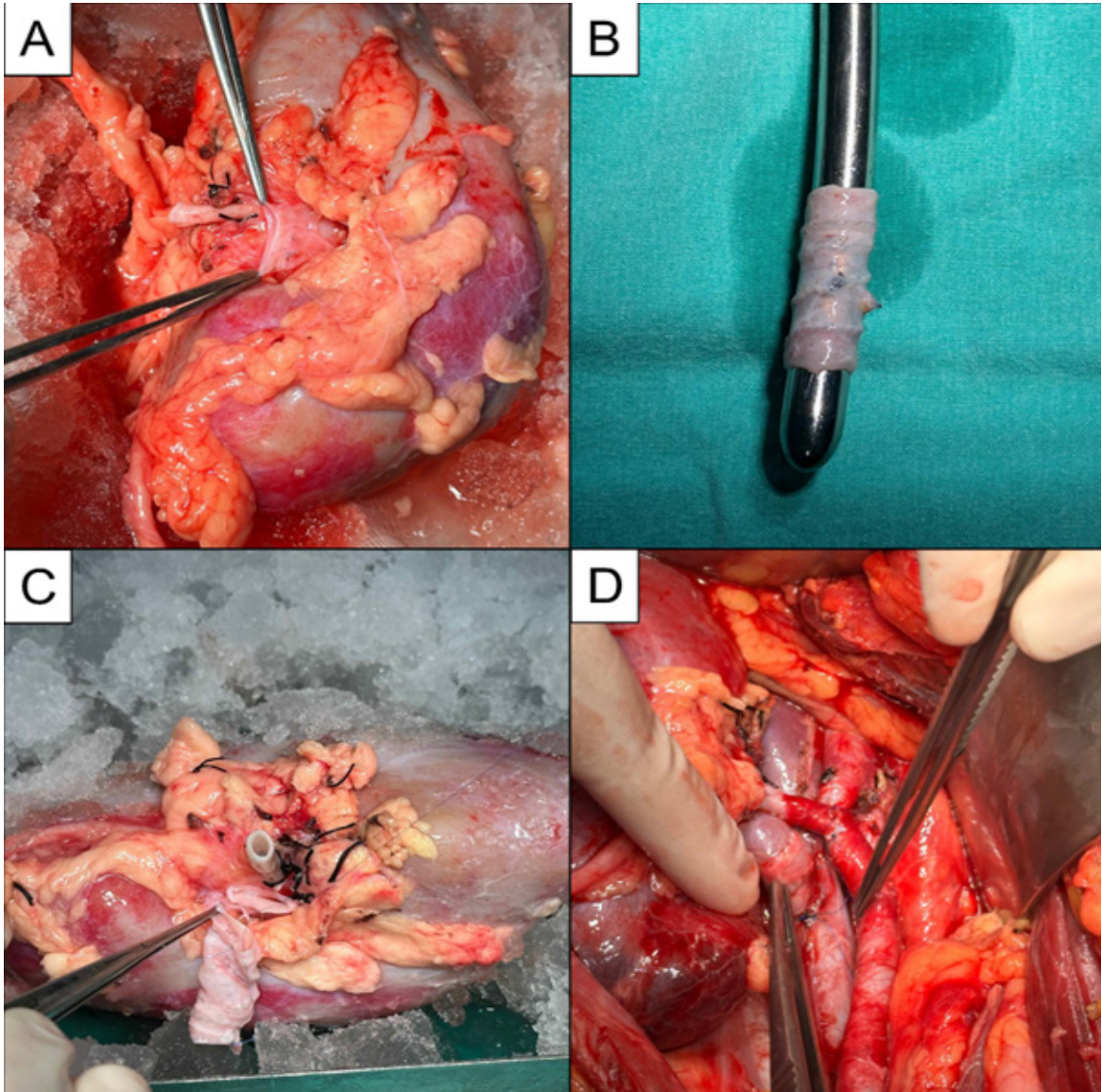


Figure 2. Living donor kidney transplantation. (A) The graft's short renal vein. (B) The circumferential vein graft harvested from the recipient's left leg. (C) The anastomosis of the renal vein with the saphenous vein graft. (D) Post-perfusion view following vascular reconstruction.