

Renal transplant operative technique

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The donor kidney is transplanted heterotopically into one of the iliac fossae via a curvilinear incision. The peritoneum should be kept intact and swept upwards to reveal the iliac vasculature. The transplant renal vein is anastomosed end to side to the external or common iliac vein. The renal artery is anastomosed either end to side to the external or common iliac artery or end to end to the divided internal iliac artery (Figure 88.13). The internal iliac artery is used more commonly for live donor kidneys because of the lack of an aortic patch. There are several

(c) Transplant kidney Renal artery Internal Renal vein iliac artery External iliac vein (c) Operative photograph of anastomosis of the renal

arteries, but it is best to minimise the number of anastomoses by careful bench surgery . For example, equal-sized arteries can be ‘trousered’ to create a single ostium for anastomosis. Upper or lower polar arteries may also be anastomosed to the divided inferior epigastric artery . It is especially important to anastomose lower polar arteries as these may provide the only blood supply to the ureter. After revascularisation of the transplant kidney the ureter is anastomosed to the bladder as an extravesical onlay (the Lich-Grégoir technique) (Figure 88.14). It is now routine practice to place a double-J stent across the ureteric anastomosis. The stent is removed by flexible cystoscopy under local anaesthesia after a few weeks. Before closing the wound it is important to ensure that the kidney is lying in a satisfactory position without kinking of the renal blood vessels.

Revision #1

Created 2025-12-31 15:31:42 UTC by Omar Ayman

Updated 2025-12-31 15:31:42 UTC by Omar Ayman