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Arterioenteric fistula 12 years after kidney transplant



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A 55-year-old woman presented to the emergency department with bright red blood per the rectum. She had a past medical history of end-stage renal disease due to diabetes. Her third and most recent renal transplant was placed intraperitoneally in the right lower quadrant 12 years before admission. She returned to hemodialysis for chronic graft rejection 11 months earlier. Physical examination revealed right lower quadrant tenderness and fresh red rectal bleeding, and her hemoglobin was 12.0 g/dl. An abdominal computed tomography scan with i.v. contrast showed extravasation of the contrast into the gastrointestinal tract (Figure 1). She became transiently hypotensive, and her repeat hemoglobin dropped to 5.9 g/dl. Catheter angiogram showed an arterial feeder arising from the transplant renal artery with active contrast extravasation into the bowel, consistent with arterioenteric fistula

(Figure 2). Emergent embolization of the feeder vessel was performed. She remained hemodynamically stable after the procedure.

The differential diagnosis for lower gastrointestinal bleeding in transplant patients is broad: ulceration from opportunistic infections (cytomegalovirus, mucormycosis, and tuberculosis), posttransplant lymphoproliferative disorder, and others. Arterioenteric fistula formation is rare after solid organ transplant. Thirteen cases have been reported after pancreas transplant and 2 cases after kidney transplant. It is associated with high mortality rate because of massive, rapid hemorrhage and difficulty with diagnosis. It requires a high level of suspicion, as presentation may be nonspecific other than bleeding. This case increases awareness of a rare cause of massive hemorrhage that can lead to significant mortality after kidney transplant.

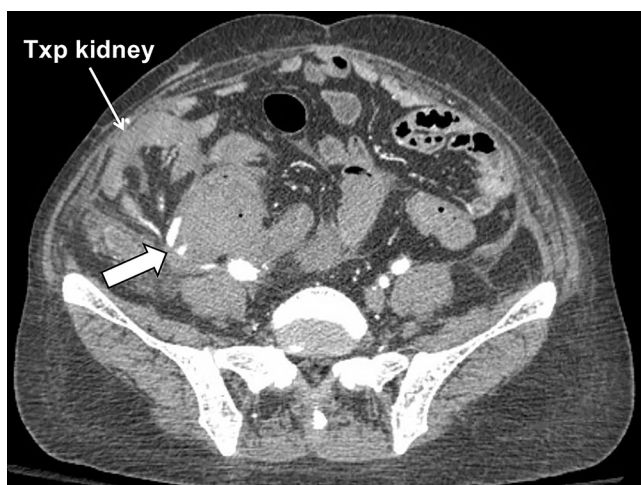


Figure 1 | Abdominal computed tomography scan with i.v. contrast. Extravasation of contrast into the bowel (arrow). Txp kidney, transplant kidney.

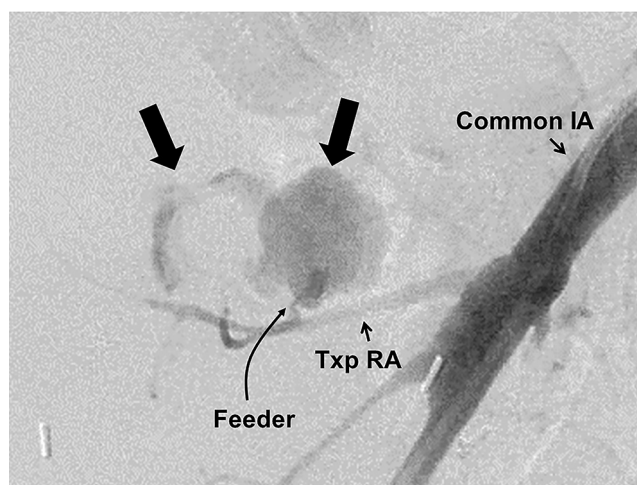


Figure 2 | Catheter angiogram. Extravasation of contrast from an arterial feeder arising directly from the transplant renal artery (Txp RA). Contrast extravasation to the bowel (arrows). IA, iliac artery.