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The Impact of Metabolic Syndrome and Vascular Calcifications of Iliac Arteries in Transplant Kidney Patients: A Case Report

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Case Study : ABSTRACT Background, renal transplantation is an effective treatment option for patients with end-stage renal disease. In transplant recipients, metabolic risk factors may be associated with increased mortality with a functioning graft and with reduced long-term renal graft survival. Arterial calcification and atherosclerosis are highly prevalent in dialysis patients, especially with metabolic syndrome. Moreover, severe vascular calcification of the iliac arteries may preclude successful vascular anastomosis with the renal graft, jeopardizing the transplant ability of dialysis patients. Case, we present a case of living unrelated donor kidney transplantation using basiliximab induction and maintenance immunosuppression with tacrolimus, methylprednisolone, and mycophenolate sodium. There were severe atherosclerosis and severe calcification at the thoracic and abdominal aortic arteries. A 49-year-old woman with end-stage kidney disease (ESKD) caused by diabetes mellitus, hypertension, and obesity. She was diagnosed with acute rejection and DIC-related acute rejection on the fifth day after the transplantation, by the kidney biopsy, with poor renal function. Based on the graft biopsy, the result was suspicious (borderline) for acute T cells mediated rejection (TCMR) Banf score category 3. After treatment of the acute rejection with intravenous methylprednisolone 500mg daily for 3 days continued with tapering off for 14 days, IVIG, and plasmapheresis, the renal function is improved. Discussion, chronic kidney patients with metabolic syndrome frequently have increased metabolic abnormalities with the development of PAD, atherosclerosis, and calcification-related long-term haemodialysis. The metabolic syndrome is associated with an accelerated loss in GFR over time. This condition will affect the outcome of kidney transplantation. Acute rejection and delayed graft function are significant in decreasing graft survival. Conclusion, renal transplantation in metabolic syndrome with renal calcification of the iliac arteries, may be related to poor outcomes of renal transplantations and prolong hospital stay.

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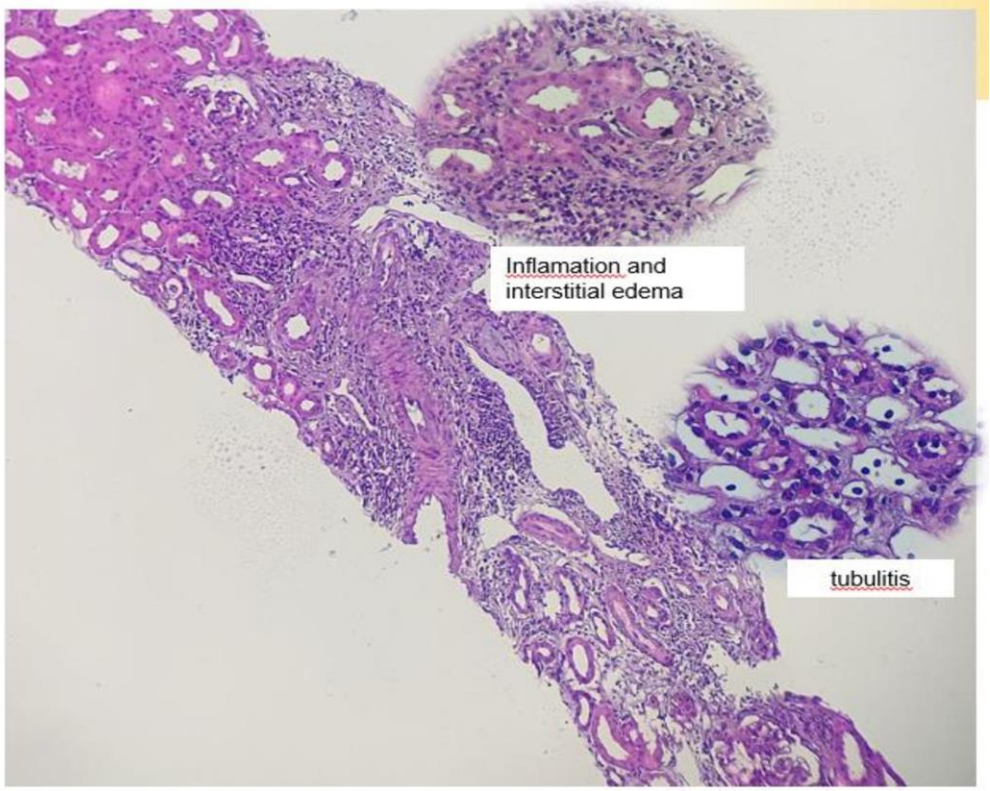

Figure 1 : Histopathologic feature of renal byopsion, at day 5 post transplantation

Tubulo interstitisl finding : Intertitial edema : (+), Inflammation : (+) with lymphocyte and neutrophil, Tubulitis : (+) with lymphocyte and neutrophil, Fybrotic : (-), Epithelial tubular degeneration : (-)

Atrophy : (-),Tubular epithelial cell vacuole : (-),Other tubule interstitial finding : (-)

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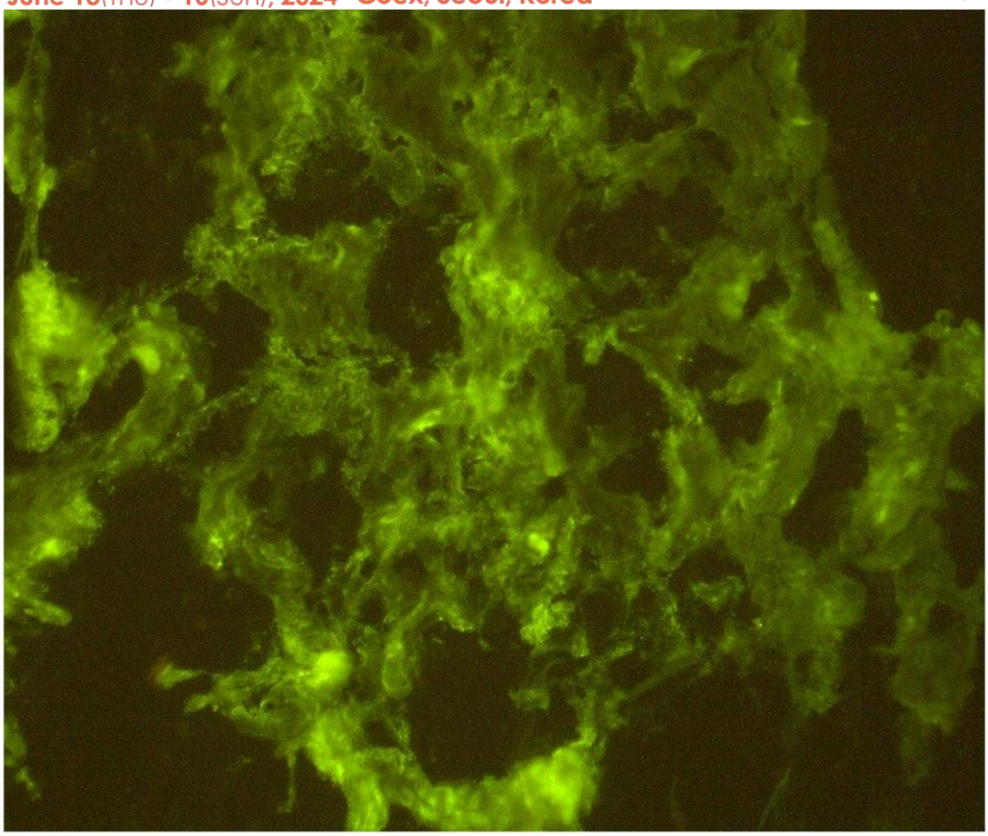

Figure 2 : Immunofluorescence : negative depocite kappa and lambda lihgt chain