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SURVEILLANCE-BASED RISK SCORE PREDICTS STENOTIC HEMODIALYSIS ARTERIOVENOUS ACCESSES

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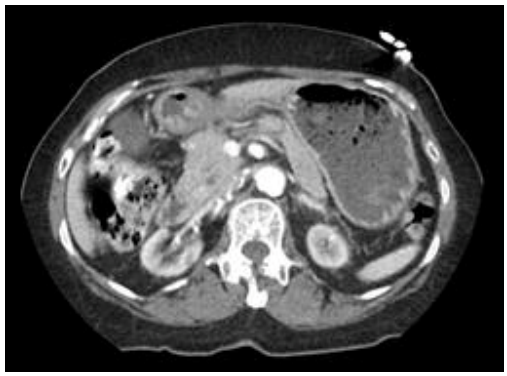

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AN ATYPICAL CASE OF LATE-ONSET MYCOPHENOLATE INDUCED COLITIS:

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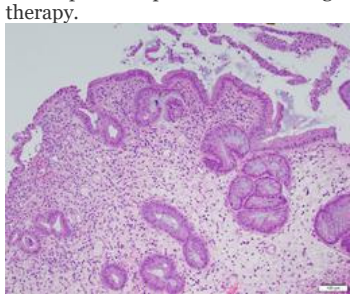
Chronic immunosuppression may increase the risk of post-transplant infection and medication-related injury. Mycophenolic acid (MPA) is a well-known immunosuppressive agent for post-organ transplants and various autoimmune disorders. We present a case of a young woman who developed late-onset mycophenolate-induced colitis after initiation of an immunosuppressive agent.

We present a 28-year-old kidney transplant patient with hypertension who was placed on MPA after renal transplantation. The patient had been doing well but started having abdominal pain, bloating, diarrhea approximately 15 months after initiation of therapy. The symptoms were associated with a weight loss of 20 pounds. The patient had a complete gastrointestinal (GI) workup, including cultures and viral serologies, and treatment was initiated for suspected small bowel bacterial overgrowth. She did not respond to prophylactic antibiotics and proton pump inhibitors. The patient underwent a colonoscopy along with a biopsy (Figure I) that identified mycophenolate-induced colitis. MPA was discontinued and the patient was switched to Azathioprine leading to improvement of the symptoms.

Mycophenolate causes immunosuppression by inhibiting rate-limiting enzymes for purines synthesis in lymphocytes. MPA can cause cytotoxic and cytostatic effects on GI epithelium by a similar mechanism of disrupting pathways in purine synthesis. The common symptoms on the GI tract caused by MPA are nausea, vomiting, ulcers, gastritis, diarrhea, abdominal pain, and rarely colitis.

Gastrointestinal symptoms are reported with mycophenolate; however, the onset of colitis after being on the medication for almost 15 months is infrequent. This case suggests that mycophenolate toxicity should be considered in evaluating late-onset posttransplant diarrhea regardless of the duration of therapy.



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SURVEILLANCE-BASED RISK SCORE PREDICTS STENOTIC HEMODIALYSIS ARTERIOVENOUS ACCESSES:

Lalathaksha Kumbar[1], Brad Astor[2], Jerry Yee[1]. [1]Henry Ford Health System; [2]University of Wisconsin School of Medicine and Public Health

This prospective study evaluated a novel risk score based on Vasc-Alert surveillance to identify hemodialysis vascular access with significant stenosis.

Patients receiving hemodialysis using arteriovenous access with Vasc-Alert scores ≥8 (high score) or ≤ 3 (low score) were prospectively enrolled. Each patient was screened for clinical symptoms of access dysfunction, received a physical examination and a point of care ultrasound scan of the access arm. Subjects were referred to angiogram by the primary care team as per clinical necessity. Clinical monitoring (CM) includes clinical symptoms and signs. Luminal narrowing > 50% found by ultrasound or angiogram is considered significant.

A total of 38 patients [20 in the high score (HS) group and 18 in the low score (LS) group] were enrolled. There is no significant difference in age, gender, diabetes, and hypertension between the groups (all p>0.10), while the LS group had a higher prevalence of coronary artery disease (55% vs. 25%, p=0.05). CM is positive in 60% of HS vs. 39% in LS (p=0.19). HS group is more likely to have significant stenosis than those in the LS group (65% vs. 17% p=0.003). Only 58% of subjects with positive CM have significant stenosis (11 of 19). A total of 19 patients had no positive CM findings. HS alone identified 4 out of these 19 patients with significant stenosis (p=0.05). Adjusted for risk score, a positive CM finding, and prior stenotic history were not significantly associated with significant stenosis. Every unit increase in the score was associated with 34% higher odds of stenosis (adjusted odds ratio [aOR] = 1.34; 95% confidence interval [95% CI]: 1.05-1.70; P=0.02). The HS group is associated with 7-fold higher stenosis odds than the LS group after adjustment (aOR=7.38; 95% CI: 1.44-37.82; p=0.02). The sensitivity and specificity of the HS group in identifying stenosis are 81% and 68%, respectively. The positive predictive value of HS is 0.65%, and the negative predictive value is 0.83.

The Vasc-Alert score predicts stenotic hemodialysis vascular access with high reliability. The score provides an objective measure for risk stratification even in those without positive CM findings.

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RENAL REPLACEMENT LIPOMATOSIS: AN UNEXPECTED FINDING ON KIDNEY IMAGING:

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Renal Replacement Lipomatosis (RRL) is a rare disorder characterized by the destruction of renal parenchyma by an inflammatory or non-inflammatory process followed by the deposition of lipomatous tissue. We report a case of RRL in a patient with chronic obstructive uropathy.

An 81 yo male with nephrolithiasis and BPH presented to the ER with worsening fatigue. His metabolic panel showed a BUN of 150 mg/dL and serum creatinine of 9.6 mg/dL. Renal ultrasound revealed normal size kidneys, bilateral moderate cortical atrophy with bilateral hydronephrosis, and a right staghorn calculus. CT abdomen-pelvis confirmed bilateral ureteral obstruction at the level of the ureterovesical junction from the thickened bladder wall. The right kidney showed lipomatous infiltration of the renal sinus and encasement of the renal pelvis and proximal right ureter with fatty tissue. Thin septations within the fat encasing the renal pelvis and proximal ureter, effacement of the renal collecting system, marked dilatation, and tortuosity of the right ureter was noted (Fig 1). These findings clinched the diagnosis of RRL involving the right kidney. The patient declined any intervention and opted for hospice care.

RRL is mainly seen with calculus disease (75% of cases). Aging, post-transplantation, chronic pyelonephritis, and renal tuberculosis are other associated conditions. It seldom involves both kidneys. The presenting symptoms are nonspecific, such as flank pain or abdominal mass. Xanthogranulomatous pyelonephritis (XGP) can mimic RRL due to its association with stones and chronic inflammation. Histology can help differentiate XGP from RRL. A CT scan is the diagnostic test of choice for RRL. MRI can further confirm the diagnosis

RRL is an uncommon finding on renal imaging. It is often associated with stone disease. CT scan is helpful to characterize and distinguish it from other renal neoplasms.