IRREVERSIBLE ACUTE RENAL FAILURE? NOT SO FAST

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A 56-year-old African male was admitted with fever and found to have acute oliguric renal failure. One week prior to his admission he had a creatinine checked before a CT scan with contrast and was 1.3 mg/dL (normal range 0.8-1.3).

He was oliguric and his laboratories showed: Cr 4.8 mg/dL BUN 45 mg/dL Na 137 mEq/L K 6.6 mEq/L and eosinophilia. Urinalysis revealed eosinophiluria. On obtaining a thorough history it was discovered that he had received Ampicillin/Cloxacillin combination antibiotic from a family member. His medical history was significant for pelvic exenteration with the creation of a terminal ileostomy and ureteral diversion with an ileal conduit four months prior to this admission due to a rectal adenocarcinoma.

Given the eosinophilia and eosinophiluria and the history of cloxacillin use, acute interstitial nephritis was the most likely diagnosis. A kidney biopsy was performed for definitive diagnosis. This showed acute tubular necrosis with marked vacuolization of the proximal tubules and no inflammatory infiltrate was found. Contrast induced nephropathy was diagnosed and renal recovery was anticipated.

The patient continued to be oliguric with only 50 cc of bloody discharge from his ileal conduit daily. He was dialysis dependent. Several ultrasounds were performed looking for intra-renal hematoma. All were negative and there was no evidence of pelvicaliceal dilatation. A loopogram showed thickening of the conduit at the site of the ureteral anastomoses. On hospital day 24 interventional radiology was asked to place retrograde ureteral stents to insure that this thickening was not causing obstruction that we hindering the recovery of his ATN. Following this procedure his urine output increased immediately with 5 liters of urine output on the first day and the creatinine decreased from 7.2 to 3.2 mg/dL. He was dismissed with a creatinine of 1.0 mg/dL.

This case illustrates the importance of excluding obstruction and not making the diagnosis of irreversible renal failure until all possibilities, however remote, are excluded.