

REFRACTORY DRUG RASH AND ACUTE KIDNEY INJURY: LEVOFLOXACIN-INDUCED ACUTE INTERSTITIAL NEPHRITIS

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BACKGROUND: Quinolone antibiotics are widely used in hospitalized patients and increasingly are being recognized as possible agents causing acute interstitial nephritis (AIN).

CASE PRESENTATION: We report a case of a 75-year old Caucasian female who presented with acute kidney injury after treatment with levofloxacin for an infected right total hip arthroplasty (THA). She presented with incisional drainage, erythema, and pain in the right hip ten days after suffering a fracture dislocation of the right THA. She was given levofloxacin but developed a diffuse rash so discontinued the medication. Three days later, she presented to her local emergency room with acute renal failure with creatinine (Cr) of 4.3 mg/dL, rash, fever, and delirium, and was hospitalized for sepsis. She was treated with aztreonam and vancomycin and started empirically on prednisone. Three days later, she was transferred to our institution for surgical consideration; her Cr had decreased to 2.2 mg/dL. Prednisone was discontinued upon admission. Her Cr came down to normal prior to right THA resection four days later. Postoperatively, her Cr rose again to 1.7 mg/dL over 4 days and she had recurrence of her diffuse rash. She had eosinophilia, eosinophiluria, 21-30 white blood cells (WBC) on urinalysis, and non-nephrotic range proteinuria. A renal biopsy was obtained which confirmed acute interstitial nephritis with WBC casts. Prednisone 60 mg orally daily was started, and her Cr subsequently declined over the next 10 days back to normal.

CONCLUSION: This case underscores the usefulness of obtaining a renal biopsy when the diagnosis of AIN is unclear and the pitfalls of empiric treatment with steroids in the absence of a tissue diagnosis. Furthermore, it demonstrates the possibility of achieving complete recovery of renal function in AIN related to levofloxacin with the use of steroids in combination with the avoidance of the offending agent.