A 61 year old male presented with a one week history of lower abdominal pain, loose stools and weight loss. Four weeks previously, he had received treatment with flucloxacillin for left leg cellulitis. He was anuric at presentation with a creatinine of 923 umol/L, requiring haemodialysis. The ultrasound scan showed no signs of obstruction with patent vessels and an autoimmune screen was unremarkable.

A kidney biopsy revealed tubulo-interstitial nephritis, attributed to recent treatment with flucloxacillin, and acute tubular injury. The patient was started on oral steroids but remained anuric requiring ongoing haemodialysis. A week later he developed lower limb thromboembolic disease which triggered investigations for an alternative explanation. FDG PET-CT scan revealed a large FDG-avid retroperitoneal mass causing non-dilated obstruction of both kidneys. Bilateral retrograde stents were inserted which resulted in a diuresis of 1.6L and cessation of haemodialysis. The mass was biopsied and found to be an undifferentiated carcinoma of unknown primary.

Complete anuria is most commonly associated with obstruction. In rare cases which occur without dilatation on ultrasound scanning, the diagnosis of obstruction can be missed or delayed. In this case, a normal ultrasound scan and the presence of an alternative diagnosis on renal biopsy were initially reassuring. Non-dilated obstruction should always be considered in cases of AKI with persistent anuria, particularly in the context of malignancy. A therapeutic trial of decompression may be indicated.