Ipiilimumab-associated minimal-change disease

To the Editor: We read with great interest the review of new drug toxicities in the onco-nephrology world.1 We would like to highlight a case of minimal-change disease and interstitial nephritis related to the use of ipilimumab. This drug has been described as causing acute kidney injury from interstitial nephritis2 as well as lupus nephritis3 in the past, but to our knowledge, there are no reported cases of minimal-change disease related to this anti-CTLA4 drug.

Our patient is a 55-year-old male with a history of metastatic melanoma. He presented to the clinic with a 2-week history of lower extremity edema and was found to have acute kidney injury with serum creatinine of 2.97 mg/dl (prior baseline of 1.2 mg/dl). Further work-up revealed 9 g of proteinuria and a serum albumin of 2.2 g/dl. Urine microscopy was unrevealing. He became oliguric, and serum creatinine rose to 5.2 mg/dl. He underwent renal biopsy that showed an interstitium with marked eosinophilic infiltration and severe edema. Glomeruli were unremarkable on light microscopy, but electron microscopy showed diffuse effacement of podocyte foot processes consistent with minimal-change disease (Figure 1). He was treated with high-dose steroids (initially 2 mg/kg). Renal function improved and nephrotic syndrome resolved. One year after this, his serum creatinine was 1.65 mg/dl and he had no proteinuria on urinalysis.

This case echoes the recommendation of Perazella et al.1 regarding the importance of rapid recognition, early steroid therapy, and renal biopsy to elucidate the cause of acute kidney injury related to this widely used drug.

ACKNOWLEDGMENT
This case was presented as a poster at the American Society of Nephrology annual meeting in November 2015 in San Diego.


Jason M. Kidd1 and Andinet B. Gizaw1
1Department of Internal Medicine, Division of Nephrology, Virginia Commonwealth University Medical Center, Richmond, Virginia, USA

Correspondence: Jason M. Kidd, Department of Internal Medicine, Division of Nephrology, Virginia Commonwealth University Medical Center, 1101 East Marshall Street, Richmond, Virginia 23298, USA. E-mail: jason.kidd@vcuhealth.org


Lung ultrasonography: a novel clinical tool to consider in nephrology

To the Editor: Volume assessment is an important skill when caring for patients undergoing chronic dialysis. Recent research has shown that lung ultrasound can be useful to nephrologists when determining volume status. B-lines seen on lung ultrasound correlate with extravascular lung water and mortality in dialysis patients.1,2 A reduction in B-lines after dialysis correlates directly with volume removal.3 Evidence also suggests that lung ultrasound can diagnose pulmonary edema more accurately than chest X-ray.4 Therefore, it can impact decisions in both the inpatient and outpatient settings.

While ultrasonography can yield valuable information to the nephrologist, nephrology programs in the United States are not required to provide training in performing bedside renal or lung ultrasound during fellowship. Recognizing this deficiency in our program, an ultrasound training course for both faculty and fellows was organized at our institution earlier this year. The 4-hour course was given by our pulmonary and critical care faculty who have expertise in this area. First, there was a

Figure 1 | Renal biopsy showing eosinophilic infiltration, an unremarkable glomerulus, and podocyte-foot process effacement. This is consistent with a diagnosis of acute kidney injury from interstitial nephritis as well as minimal change disease. (a) Periodic acid–Schiff stain showing eosinophilic infiltration. (b) Electron microscopy demonstrating diffuse podocyte effacement.