When Minimal Becomes Multiple: An Adult with Multiple Flares of Minimal Change Disease

Kyle Kreitman DO
Lehigh Valley Health Network, Kyle.Kreitman@lvhn.org

Nathan Brewster DO
Lehigh Valley Health Network, Nathan.Brewster@lvhn.org

Kaitlyn Musco MD
Lehigh Valley Health Network, Kaitlyn.Musco@lvhn.org

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Kyle Kreitman, DO, Nathan Brewster, DO, Kaitlyn Musco, MD

Department of Internal Medicine, Lehigh Valley Health Network, Allentown, Pennsylvania

INTRODUCTION

Minimal Change Disease (MCD) is a common cause of nephrotic syndrome accounting for up to 90% of nephrotic syndrome cases in children.[1,2] However, it is much less common in adults, accounting for only 1–15% of cases which have a female preponderance[1] and are generally responsive to corticosteroids.[3] Furthermore, the main risk factor for relapse as an adult is frequent relapses as a child.[1]

CASE DESCRIPTION

A 52-year-old male with a past medical history of biopsy confirmed MCD diagnosed at age 48 and paroxysmal atrial fibrillation and coronary artery disease presented to the hospital with abdominal pain, anasarca, and weight gain. Prior to admission and since his MCD diagnosis, he had failed multiple prednisone tapers and tacrolimus monotherapy with a total of 2 significant flares before achieving remission with rituximab for the past year. During his new admission, he was diagnosed again with an MCD flare with a urine protein to creatinine ratio of 15.47 and placed on high dose corticosteroids. Despite steroid therapy, his renal function continued to decline, and he was subsequently restarted on rituximab. His hospital course was complicated by coagulopathy to an INR of 10.6 and hematemesis requiring transfer to the ICU where he was intubated due to hypoxic respiratory failure. He eventually required renal replacement therapy, and had a protracted course including acalculous cholecystitis necessitating percutaneous cholecystectomy, abdominal wall cellulitis, septic shock, and critical care myopathy. The patient eventually underwent a tracheostomy and PEG tube placement before being discharged to rehab five weeks after admission. He spent seven additional weeks in rehab before being discharged home.

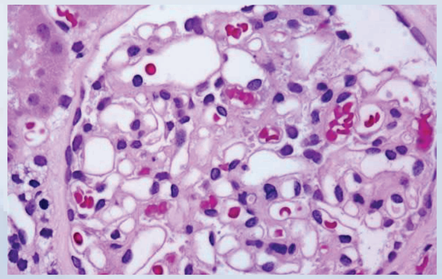

Figure 1: Microscopic view of Minimal Change Disease

DISCUSSION

Although considered a childhood disease, MCD should be considered in adult patients with nephrotic syndrome even without a history of childhood disease. When MCD flares become severe, close monitoring is necessary as it can cause immediate life-threatening complications. When patients are not responsive or are unable to wean off of steroids as is this patient, other means of treatment should be pursued to reduce the risk of relapse. Currently, there is a paucity of clinical data on rates of remission for patients on rituximab and for how long remission lasts.

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