



Bilateral Pulmonary Embolism and Renal Vein Thrombosis in a Patient with Nephrotic Syndrome

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Keywords

Nephrotic syndrome; Anticoagulation; Thrombosis; Obesity.

Clinical Image

A 66-year-old female, with a long standing history of obesity (BMI=37 kg/m²), hypothyroidism, hypertension and dyslipidemia presented to the emergency department for bilateral flank pain associated with bilateral lower extremity edema. A kidney biopsy had been performed a few days prior to her presentation for nephrotic syndrome with a normal serum creatinine level at 0.98 mg/dL, a urinary protein excretion of 9.97 g/g of creatinine and an albumin level at 2.4 g/dL with the biopsy result still pending. A computed tomography scan of the chest, abdomen and pelvis with IV and oral contrast revealed bilateral pulmonary embolism (Figure 1) and subtotal thrombosis of both renal veins (Figure 2). A small left peri-renal hematoma was also seen (related to the biopsy). A Doppler study of both lower limbs excluded any deep vein thrombosis. She was admitted and anticoagulation therapy was initiated immediately. She also underwent a hypercoagulable workup that included anti-cardiolipin antibodies and lupus anti-coagulant and was negative. The kidney

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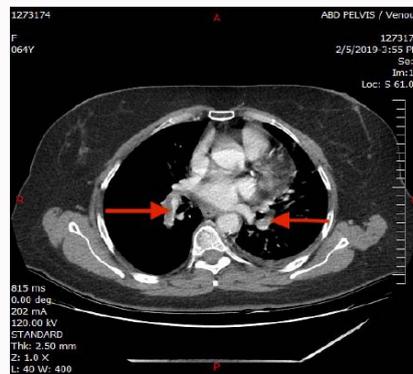


Figure 1: Computed tomography axial view showing bilateral pulmonary embolism (arrows).

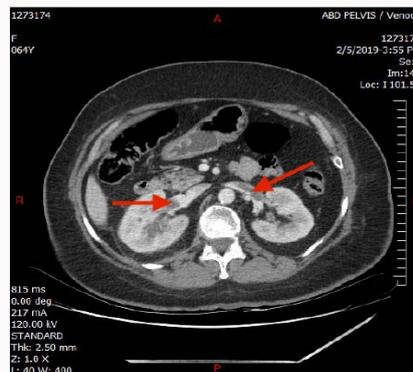


Figure 2: Computed tomography axial view showing subtotal occlusion of bilateral renal veins (arrows).

biopsy revealed membranous nephropathy with negative PLA2 receptor antibody titers. Although the association of hypercoagulable state with membranous nephropathy is well known and calls for anti-coagulation whenever the albumin level is less than 2.5 g/dL, this dramatic presentation calls for initiation of anti-coagulation without waiting for further work up and kidney biopsy results whenever factors such morbid obesity, a proteinuria of more than 10 g and an albumin level of less than 2.5 g/dL are present, as advocated for any nephrotic syndrome by the most recent KDIGO guidelines [1].

References

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