Abstract

Pulmonary alveolar proteinosis (PAP) is a rare condition that is defined by the abnormal buildup of surfactant proteins and lipids within the alveoli, leading to respiratory failure. The definitive diagnosis of PAP is established through the identification of autoantibodies targeting granulocyte-macrophage colony-stimulating factor (GM-CSF). We present a case involving a 42 year old female who experienced post-COVID-19 pulmonary alveolar proteinosis (PAP) along with renal involvement. The patient initially complained of persistent shortness of breath following COVID-19 infection. A contrast-enhanced CT scan (CECT) revealed the characteristic crazy paving pattern in the lungs, strongly indicating the presence of PAP. Several months later, the patient's respiratory distress worsened, and she also experienced bilateral lower limb oedema. A renal biopsy showed minimal changes in the glomeruli and mild interstitial inflammation, leading to the differential diagnoses of minimal change disease, IgM nephropathy, stage 1 membranous nephropathy, and monoclonal immunoglobulin deposition disease. The CT findings in PAP often overlap with those observed in COVID-19, posing a diagnostic challenge. This case emphasizes the significance of considering the clinical context, patient history, and additional diagnostic tests to differentiate between PAP and COVID-19. Furthermore, it sheds light on the rarity of PAP occurring concurrently with renal involvement.