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DYSPNEA IN TIMES OF COVID-19 – A RHEUMATOLOGICAL DIFFERENTIAL

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BACKGROUND

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has dramatically changed decision-making regarding acute respiratory failure, since it turned previously probable diagnoses into remote possibilities in the context of the high coronavirus disease 2019 (COVID-19) incidence.

CASE REPORT

M.L.F.M.S., a 26-year-old female patient, Caucasian, information technologist, resident in São Paulo, no data about previous disease in the transfer report. She sought emergency care with a chief complaint of dyspnea at slightest efforts and non-productive cough, with previous contact with COVID-19 confirmed coworkers. On physical examination, oxygen saturation was 88% on room air and lung auscultation with diffuse coarse crackles bilaterally. The patient did not respond to furosemide and noninvasive ventilation, requiring orotracheal intubation. Chest computed tomography showed extensive bilateral and multifocal ground-glass opacities, consistent with viral pneumonia. She was transferred to the ICU and presented hypertension, anasarca, anemia and kidney dysfunction. Molecular testing for COVID-19 and H1N1 was negative. In addition to the deterioration of anemia and renal function, features of thrombotic microangiopathy appeared, which included decreased haptoglobin, thrombocytopenia and schistocytes on the peripheral blood smear. She underwent hemodialysis with improvement in respiratory function and successful extubation. At this time, she informed a history of polyarthralgia and Raynaud's phenomenon for the last 6 months. Detailed physical examination showed diffuse skin thickening and claw hands compatible with systemic sclerosis (SS) (Rodnan score 30) as the primary diagnosis, complicated with scleroderma renal crisis leading to acute hypertensive pulmonary edema. Captopril was initiated and titrated according to blood pressure levels. The patient showed improvement in laboratory parameters of microangiopathy. Despite this, she remained with renal dysfunction requiring hemodialysis. Autoantibodies: ANA 1/320 nuclear fine speckled and anti-Scl70 negative. Nailfold capillaroscopy: scleroderma pattern. Due to the rapid progression of the skin involvement, pulse therapy with cyclophosphamide was initiated. The patient was discharged still needing ambulatory dialysis but with good prognosis; treatment with captopril and cyclophosphamide was maintained.

CONCLUSION

The epidemiology of 2020 has made SARS-CoV-2 the main diagnosis for acute respiratory insufficiency, and that may cause other important differential diagnosis to not be taken into consideration. Systemic rheumatic disease should be suspected based on clinic and laboratorial characteristics and must be promptly recognized for adequate treatment. In this case, systemic sclerosis was diagnosed with scleroderma renal crisis, which is a rare complication of SS (5% of the cases). It is associated with a high morbimortality rate and need for renal replacement therapy. Treatment is with angiotensin-converting enzyme inhibitors, especially captopril, which improves renal function and survival.