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Rheumatoid Arthritis-associated Interstitial Lung Disease: Is it an overlooked diagnosis in primary care?

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Introduction:

Rheumatoid arthritis (RA) is a systemic autoimmune disease with both intra and extra articular manifestations. The most common pulmonary manifestation of RA is Interstitial lung disease (ILD). ILD's presentation mimics that of other etiologies including respiratory tract infections, heart failure and chronic obstructive pulmonary disease. Hence it can be a challenging diagnosis especially in the primary care setting.

Case presentation:

A 69-years-old female presented with gradually worsening shortness of breath and productive cough. Physical examination was significant for labored breathing and diffuse crackles on auscultation. Labs showed leukocytosis without bandemia. BNP and D-Dimer were unremarkable, and coronavirus disease 19 (COVID-19) PCR was negative. Chest x-ray showed diffuse interstitial infiltrates. Patient initially managed for community-acquired pneumonia with ceftriaxone and azithromycin. Despite treatment, her condition deteriorated two days into admission, her oxygen saturation dropped and a repeat chest x-ray demonstrated worsening pulmonary infiltrates. High-resolution CT displayed diffuse ground-glass opacities exhibiting a mosaic pattern. Comparison with prior HRCT revealed significant reduction in lung volumes. Previous medical records revealed RA was diagnosed over a decade but left untreated in addition to recurrent dyspnea managed as heart failure or COPD exacerbation with partial relief of symptoms. Eventually, we suspected ILD flare in the setting of RA. Her antibiotics were discontinued and she was started on high dose solumedrol and prednisone, which brought significant symptomatic improvement.

Conclusion:

This case illustrates the importance of early and prompt identification of interstitial lung disease in patients with RA. A timely diagnosis can delay the progression of fibrosis, scarring, and reduction in lungs volume.

