RHEUMATOID ARTHRITIS WITH INTERSTITIAL LUNG DISEASE AND PULMONARY TUBERCULOSIS

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INTRODUCTION
Rheumatoid arthritis (RA) is a chronic inflammatory autoimmune condition of unknown etiology. It may result in variety of extra-articular manifestations including respiratory manifestations. It mainly involves pleura but can also affect lung parenchyma in form of interstitial lung disease. However, pulmonary tuberculosis in a case of rheumatoid arthritis is not seen commonly. There are two studies which reported occurrence of pulmonary tuberculosis in patients of RA probably because of reduced immunity related to treatment with steroids and eternacept. However, there is rarity of such reports from developing countries.

CASE
A 45 year old female, a known case of RA since three years on maintenance steroid therapy (Prednisolone 10 mg daily), hydroxy chloroquine (HCQ) 200mg twice daily and calcium 500mg once daily, presented to us with history of breathlessness since two months. It was insidious in onset, gradually progressive and increased on exertion. Low grade, continuous fever was also present. She had cough with minimal whitish expectoration. It was associated with multiple joint pains of both upper limbs involving small joints of hands and left ankle and knee joint. Morning stiffness was present with no joint deformity.

ON EXAMINATION
She was febrile with temperature 100°F and pulse was 110/min. Her blood pressure was 106/70mmhg. Pallor was present but no clubbing, cyanosis, icterus, lymphadenopathy or oedema was noted.

On systemic examination (Respiratory): There were bilateral coarse crepitations in midzone and basal area. Rest of the examination was normal.

INVESTIGATION
Hemoglobin-8.1mg%, Total leucocytes count -10,000 cell/cumm, Erythrocyte Sediment Rate-40, Malaria parasite-negative, Creatinine-1.5 mg%, urea-54 mg%, RA- strongly positive (146). AFB in sputum POSITIVE (2+).

X-ray Chest PA view - Multiple bilateral reticular nodular patterns was seen in mid and lower zone.

High Resolution CT - Suggestive of bilateral lung parenchymal and interstitial pulmonary nodules in upper lobe with central cavitation.

Fig 1: X-ray Chest PA view
TREATMENT
Patient was treated with anti tubercular drugs with Rifampicin 600mg once daily(OD), Isoniazide 300mg OD, Pyrizinamide 1200mg OD, Ethambutol 750mg OD, Prednisolon 40mg OD, HCQ 200 BD.

DISCUSSION
RA has been associated with an increased risk of TB. The immunosuppressive therapies to treat RA, may lead to the development of TB in patients with latent infection that may otherwise have been prevented. Indeed, cases of active TB in patients with rheumatoid arthritis (RA) have recently been reported, and this has brought about a renewed interest in the relationship between the two diseases.

REFERENCES