Tuberculous arthritis in a patient with rheumatoid arthritis treated with methotrexate alone

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DESCRIPTION

An 81-year-old woman who had been treated since 1994 with methotrexate (MTX) monotherapy (10 mg/week) for rheumatoid arthritis (RA) was referred to a tertiary hospital for worsening arthritis of hands and knees for about 1 year. She had a history of primary osteoarthritis and of tuberculosis, but had not been prescribed preventive antituberculosis medication. Two months before, she had been given prednisolone (5 mg/day) in addition to MTX for the worsening of arthritis, but her symptoms did not improve. The right thumb and left knee joints were aspirated, and acid-fast bacillus was found in the acid-fast stain of the fluid from both joint (figure 1), and bilateral miliary shadows were seen on chest X-ray (figure 2). *Mycobacterium tuberculosis* was later detected in sputum, urine and joint fluid cultures. She was diagnosed with tuberculous arthritis caused by reactivation of tuberculosis. She was treated with an antituberculosis regimen and her condition resolved completely.

It is well known that treatment of RA with glucocorticoids and biological agents increases the risk of reactivation of tuberculosis.¹ Although MTX monotherapy has also been reported to decrease cell-mediated immunity,² there are few reports of reactivation of tuberculosis by MTX monotherapy.³ The risk of developing tuberculous arthritis in patients with RA is about four times that of the general population.² Management of RA should include screening for latent tuberculosis. When

Figure 2 Chest X-ray on admission.

Learning points

- ▶ Even patients with rheumatoid arthritis treated with methotrexate alone are at risk of reactivation of tuberculosis.
- ▶ It is important in the case of worsening arthritis to consider the possibility of tuberculous arthritis.

joint symptoms worsen in patients with RA, it is important to consider the possibility of tuberculous arthritis and to rule out tuberculosis, even if monotherapy with MTX is being employed.

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Figure 1 Hand with primary osteoarthritis, RA and tuberculous arthritis of interphalangeal joint. (after aspiration). RA, rheumatoid arthritis.

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