

Pericostal tuberculosis in a patient with systemic sclerosis:the relationship of two rare diseases

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Abstract

Autoimmune diseases including systemic sclerosis (SSc) increase risk of developing TB. Pericostal tuberculosis (TB) is a rare presentation of skeletal TB. This case report describes pericostal TB in a SSc patient, and emphasizes significance of suspecting pulmonary and extra-pulmonary TB when patients with autoimmune disease follow atypical clinical courses.

Title:

Pericostal tuberculosis in a patient with systemic sclerosis:the relationship of two rare diseases.

Running title: Pericostal Tuberculosis and Systemic Sclerosis

Key words: Tuberculosis, Systemic Sclerosis, Scleroderma,

Mycobacterium tuberculosis

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An 83-year old woman presented with a left pericostal painful mass which she had had for a year. She was diagnosed with systemic sclerosis(SSc) by skin thickening and a positive result of anti-centromere antibody at age 75, however she didn't take any immunosuppressants. An abdominal CT showed a pericostal mass (Figure1). We performed a needle biopsy, the result was negative for Ziehl-Neelsen stain, but both the PCR and culture of tuberculosis(TB) from the drain were positive. She was diagnosed with pericostal TB, and we started a combination treatment with isoniazid, rifampicin, pyrazinamide and ethambutol. Her chest pain resolved quickly and a repeat biopsy culture was done one month after initiation of treatment, the result was negative. Pericostal TB is a rare presentation of skeletal TB and is thought to be caused by an extension of a TB infection of the intercostal lymph nodes¹. It has been reported that the risk of TB in SSc patients is 2.8 times higher than those in the general population². The increased risk of developing TB in patients with autoimmune disorders may be due to an immune abnormality itself or immunosuppressants². Regardless of immunosuppressant use, physicians should be aware of TB in SSc patients.

Ethics statement:

Written informed consent was obtained from the patient who participated in this study. This case report did not receive any funding. Authors have access to all source data for this case report.

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Conflict of interest:

None declared.

Author contributions:

Naoho Takizawa: wrote the initial draft, reviewed the literature, revised manuscript, and approved the final version.

Tetsushi Mizutani: reviewed the literature, revised manuscript.

Yoshiro Fujita: reviewed the literature, revised manuscript, and approved the final version.

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Figure

Abdominal contrast-enhanced CT

White arrow showed pericostal mass with central hypoattenuation.

