

The Interplay between Tuberculosis, Systemic Lupus Erythematosus and Covid-19.

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INTRODUCTION

Tuberculosis (TB) is an endemic infection in this part of the world. The interaction between systemic lupus erythematosus (SLE) and TB is complex. SLE patients, who are immunocompetent, are more likely to develop extra-pulmonary TB with higher relapse rate.

CASE REPORT

30 year-old housewife with underlying lupus disease under rheumatology treatment, presented with 10 months history of right shoulder swelling, which is gradually increasing in size, and a day of fever prior to hospitalization. Beside tenderness and erythematous, physical examination showed diffuse swelling over right shoulder joint with marked reduction in range of movement.

Laboratory result documented increased infective marker as expected (ESR-67 and CRP-39). Right shoulder radiograph demonstrated extensive lytic lesion over humeral head and glenoid bone. Magnetic Resonance Imaging (MRI) revealed a large subdeltoid collection with extension into shoulder joint. Intra-operatively noted large amount of pus with bony erosion over both humeral and glenoid articular surface. Culture and sensitivity confirmed the present of *Mycobacterium tuberculosis*.

DISCUSSION

Concomitant Coronavirus infection added spices and challenges in the management of this patient. The administration of steroids for the concurrent acute flare of SLE with generalized body rashes and treatment for Covid-19 infection, remain

the main reason for unresolved shoulder infection. Hence, she underwent multiple debridement and arthrotomy washout under Covid Operation Theatre (OT), despite the commencement of anti-TB.



Figure 1: Right shoulder X-ray (left) and MRI (right).

CONCLUSION

High suspicion of TB in SLE patients from endemic countries should be kept in mind, especially those with high cumulative doses of corticosteroids. The use of corticosteroids blocks lymphocytes proliferation and antigen-specific immune response, producing a significant impairment of cellular immunity and increasing the difficulty in management of tuberculosis septic arthritis..

REFERENCES

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