Review of: "[Case Report] Challenging Detection of Latent Tuberculosis in a Patient Undergoing High-Dose Corticosteroid Therapy for Acute Hemolytic Anemia and Rhupus Arthropathy"

Sipho Duncan Ntshalintshali[1]

1 University of KwaZulu-Natal

Potential competing interests: No potential competing interests to declare.

Title**: Challenging Detection of Latent Tuberculosis in a Patient Undergoing High-Dose Corticosteroid Therapy for Acute Hemolytic Anemia and Rhupus Arthropathy**.

Comments:

Case report

- It is unclear how the diagnosis of SLE and RA overlap was made to begin with, although this is presented as part of previous history, it becomes important to highlight how the diagnosis was made since TB can result in the positivity of some of the antibodies seen in these autoimmune diseases such as the rheumatoid factor (not stated in this case report), and TB can lead to a reactive-type arthritis (Poncet's disease).
- The dosage of Methotrexate is indicated as 200mg per week, probably this is a mistake since it would be almost 10-fold the usual dose used for arthritis in autoimmune diseases such as RA. If it is accurate, this could be the reason for the complication of TB since it may lead to severe immunosuppression.
- The MCV on the blood results panel is elevated on 2 occasions, to eliminate the possibility of a vitamin B12 deficiency, folate deficiency, reticulocytosis or hypothyroidism (autoimmune thyroiditis in SLE) as a cause for the anemia with macrocytosis, these results should be included.
- It remains unclear how the diagnosis of an autoimmune hemolytic anemia was made. A blood smear showing fragments or schistocytes and bilirubin levels should be included to prove the diagnosis of hemolytic anemia. Not mentioned on the report. Was the diagnosis accurate?
- The flow of the case report needs to be attended to. How was the hemolytic anemia eventually treated in this patient? All we know is that after the initiation of high dose steroids the patient was fond to have LTBI and started on TB treatment.

Syntax and spelling errors

- Table 2 title: Rheumatology cannot be a title of a table containing blood results, to consider a more appropriate title maybe?

- Figure 2, footnote. "rectropectoralis lymph node", is the spelling correct? Retropectoralis maybe?
- Under discussion, first paragraph. It is stated "As far as we know, this is the first case of reactivation TB complicated by RA/SLE overlap syndrome". However, TB is not complicated by the overlap syndrome, the other way around would be more acceptable. Reactivation TB may complicate a case of RA/SLE overlap syndrome.

Discussion

Point 1:

On the first paragraph, it is stated "As far as we know, this is the first case of reactivation TB complicated by RA/SLE overlap syndrome", this statement might not be accurate. There have been numerous cases of SLE and RA described with a complication of reactivation TB upon initiation of steroids, some dating as early as 1974. I suggest you expand your search. This meta-analysis maybe useful in your search of relevant studies:

The risk of infections in adult patients with systemic lupus erythematosus: systematic review and meta-analysis. doi: 10.1093/rheumatology/keaa478

Point 2:

On paragraph 4, its is stated, "Currently, there are no clear universally accepted guidelines for TB detection and screening in those being treated for autoimmune conditions with corticosteroids". This statement is inaccurate since there are ACR and EULAR guidelines that are accepted worldwide for the screening and management of latent TB in autoimmune disease. See for some of the latest guidelines:

Systematic literature review informing the 2022 EULAR recommendations for screening and prophylaxis of chronic and opportunistic infections in adults with autoimmune inflammatory rheumatic diseases. doi: 10.1136/rmdopen-2022-002726.

Point 3:

On paragraph 6, it is stated “For high-risk immunocompromised individuals we recommend screening with, IGRA, TST and CXR to increase sensitivity. If CXR is inconclusive or there is high clinical suspicion of LTBI consider additional chest CT imaging. If CXR or CT come back with signs of latent TB infection (apical fibronodular lesions, calcified solitary nodule, calcified lymph nodes, or pleural thickening), it is important to get a clear patient history to evaluate other granulomatous disease including histoplasma and sarcoidosis.”

What are the basis for these recommendations? It is rather improper to suggest recommendations based on a single case report. What is the weight of the evidence presented to support these recommendations?

Final comment

In general, active and latent Tuberculosis remain a challenge in the management of patients with autoimmune diseases. The objective of this case report under this topic remains unclear to me. Usually, an unusual presentation of a common disease, or a common presentation of a rare disease are more publishable since they teach the reader to have a high index of suspicion for the disease in certain clinical presentation scenarios. This current case report however, indicates none of these case scenarios. Furthermore, the case report itself is incomplete, and there are multiple conclusions drawn which are not in line with current knowledge on the subject. I believe that this paper is not suitable for publication.