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Clinical image

Arthralgia and scaly rashes over the palms and the soles



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Arthralgia and scaly rashes over the extremities

A 27-year-old male was seen for a two-month history of fever, lethargy, polyarticular arthralgias, and eruptions over the palms and the soles. Systemic symptoms, including diarrhea, dysuria, headaches, or gastrointestinal symptoms were unnoticeable. The temperature was 37.9 °C. Skin examination showed erythemas on the palms and soles. On the top of these lesions, Biett's collarette was presented typically to be a central clearing and a rim of collarette scales (Fig. 1). No lesions were observed on other parts of the skin or mucosa. Blood tests revealed a raised white blood cell count of 8400/μL and elevated C-reactive protein level of 85 mg/L. Rheumatoid factor was slightly elevated at 18 IU/mL, tests for double-stranded DNA and extractable nuclear antibodies were negative. Chest radiograph was also normal. Conjunctival, cardiovascular, and genital evaluations were unremarkable. A rapid plasma reagin (RPR) test was negative, but became positive when diluted at

1:8 even to a dilution of greater than 1:2048. The result of the *Treponema pallidum* hemagglutination assay (TPHA) was reactive. He was diagnosed as secondary syphilis and was treated with intramuscular injection of 2.4 million units of penicillin G benzathine, and all the symptoms resolved within three weeks.

Secondary syphilis manifests as generalized lymphadenopathy, hepatosplenomegaly, arthralgia, optic neuritis, meningitis, glomerulonephritis, and so on.¹ More than 80% of the secondary syphilis has macular, maculopapular, or annular eruptions. Biett's collarette is a pathognomonic sign for secondary syphilis.^{1,2} It is characterized by a central maculopapule with a peripheral ring of scales, specifically notable on the palms and soles. In light of the resurgence of syphilis worldwide, it is imperative for the clinicians to refamiliarize themselves with Biett's Collarette and prozone phenomenon in the setting of syphilis to avoid a wrong or late diagnosis and intervention in such a potentially treatable condition.

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Fig. 1 – Photograph of the palms and soles of the patient at consultation. There were multiple maculopapules symmetrically distributed over the palms (a) and the soles (b), ranging from 2 to 10 cm in diameter. Many of them showed the sign of Bielt's Collarette, which is characterized with a central clearing and a rim of collarette scales with surrounding erythema.

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Author contributions

All authors saw the index case, did research on the topic, and contributed to the writing of the report. Tan was the clinician primarily responsible for the patient. Zhu helped to proof read and revise the report.

Conflicts of interest

The author declare no conflicts of interest.

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