SKIN

BRIEF ARTICLE

Psoriasiform Lesions of Secondary Syphilis on the Trunk

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ABSTRACT

Background Secondary syphilis typically presents as a polymorphic rash covering the palms and soles, or as mucocutaneous lesions. Although its presentation is known to be varied, it is most commonly a non-pruritic, generalized, violaceous rash.
Case Presentation We describe a case of secondary syphilis in a 64-year-old male who presented with focal annular, hyperkeratotic papules and plaques over the chest and lower abdomen that initially presented as pruritic lesions that progressed to have a burning, painful quality.
Discussion Localized manifestations of secondary syphilis have been associated with syphilitic reinfection or late manifestations of secondary syphilis and have been associated with the head and neck region. Annular lesions have also been associated with presentation in the anogenital region, palms and soles. Presentation of annular, hyperkeratotic papules and plaques localized to the trunk makes this case exceedingly unusual.
Conclusion We conclude that immunohistochemical staining may be required to confirm the diagnosis of secondary syphilis, as morphology and distribution alone can be misleading.

INTRODUCTION

Secondary syphilis most commonly manifests as a generalized, non-pruritic skin rash involving the palms and soles. Mucocutaneous manifestations may also occur, including condyloma lata and mucous patches. Lesions can be maculopapular, pustular, or nodular.[1] In this report, we highlight a unique presentation of localized, psoriasiform secondary syphilis.

CASE REPORT

A 64-year-old male presented to the Emergency Department for evaluation and treatment of an acute rash. Approximately four days prior to the ED presentation, the initial lesion appeared on his chest and later spread to the lower abdomen. The patient denied recent travel, high-risk sexual exposures, or any trauma to the affected areas. The rash was initially itchy, and became progressively burning and painful.
Physical examination revealed localized annular, hyperkeratotic papules and plaques on the chest (**Figure 1**) and lower abdomen. CBC and CMP were non-contributory. Given

the unique presentation of the patient's skin findings, a 4mm punch biopsy of the chest lesion was performed.

Pathology demonstrated multiple treponeme organisms on immunostaining (**Figure 2**). To confirm the diagnosis, additional serological tests were performed including nontreponemal testing.[1] Fluorescent Treponemal Antibody Absorption (FTA-ABS) test was positive, and the Rapid Plasma Reagin (RPR) titer was 1:128. Taken together, a diagnosis of secondary syphilis was made.

The patient was treated with 2,400,000 units of intramuscular penicillin, administered six days after his initial presentation. At his 10-day follow-up appointment, the patient reported significant improvement in his symptoms and near complete resolution of the rash was noted on physical exam.

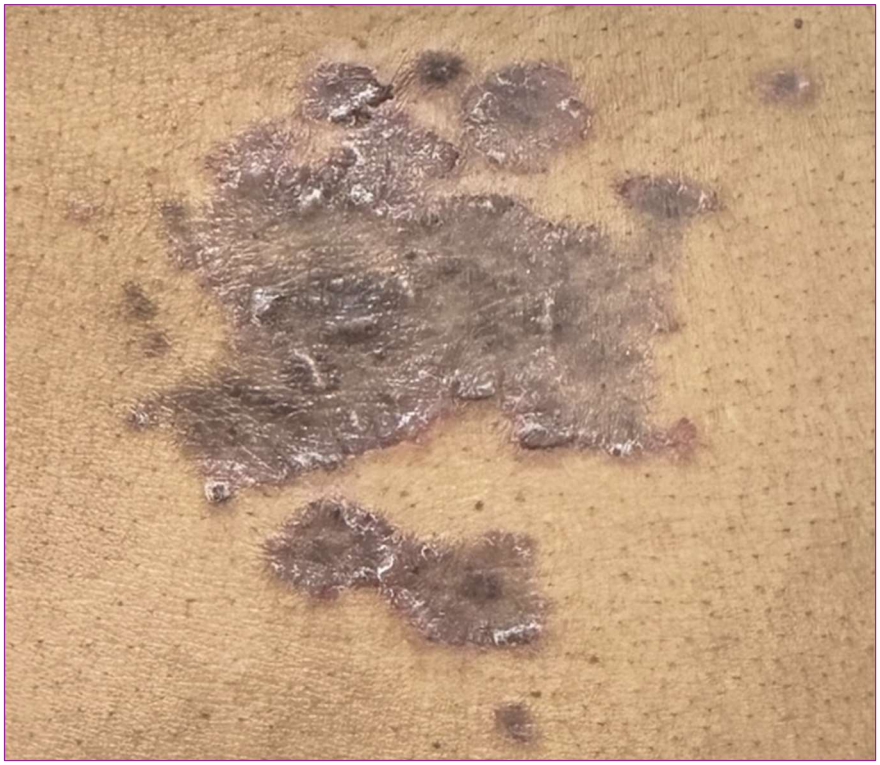

Figure 1. Secondary syphilis as annular, hyperkeratotic coalescing papules presenting on the chest, which differs from the maculopapular rash commonly involving the palms and soles that is classically associated with the condition

DISCUSSION

Secondary syphilis is a diagnosis known for its heterogenous nature. The condition typically manifests as a rash presenting within three months of initial syphilitic exposure. The distribution primarily involves the skin and mucous membranes and classically affects the palms and soles, along with accompanying generalized

lymphadenopathy. Secondary syphilitic lesions usually present as non-pruritic, diffuse, generalized papulosquamous rash that can vary in color from pink to violaceous or brown.[2] Localized lesions of secondary syphilis have been described, primarily in a

head and neck distribution. Localized secondary syphilis is typically associated with re-infection rather than an initial syphilitic infection.[3]

have been documented as being associated with syphilis reinfection or a late manifestation of secondary syphilis.[3] The prevalence of annular syphilis has been reported in approximately 10% of secondary

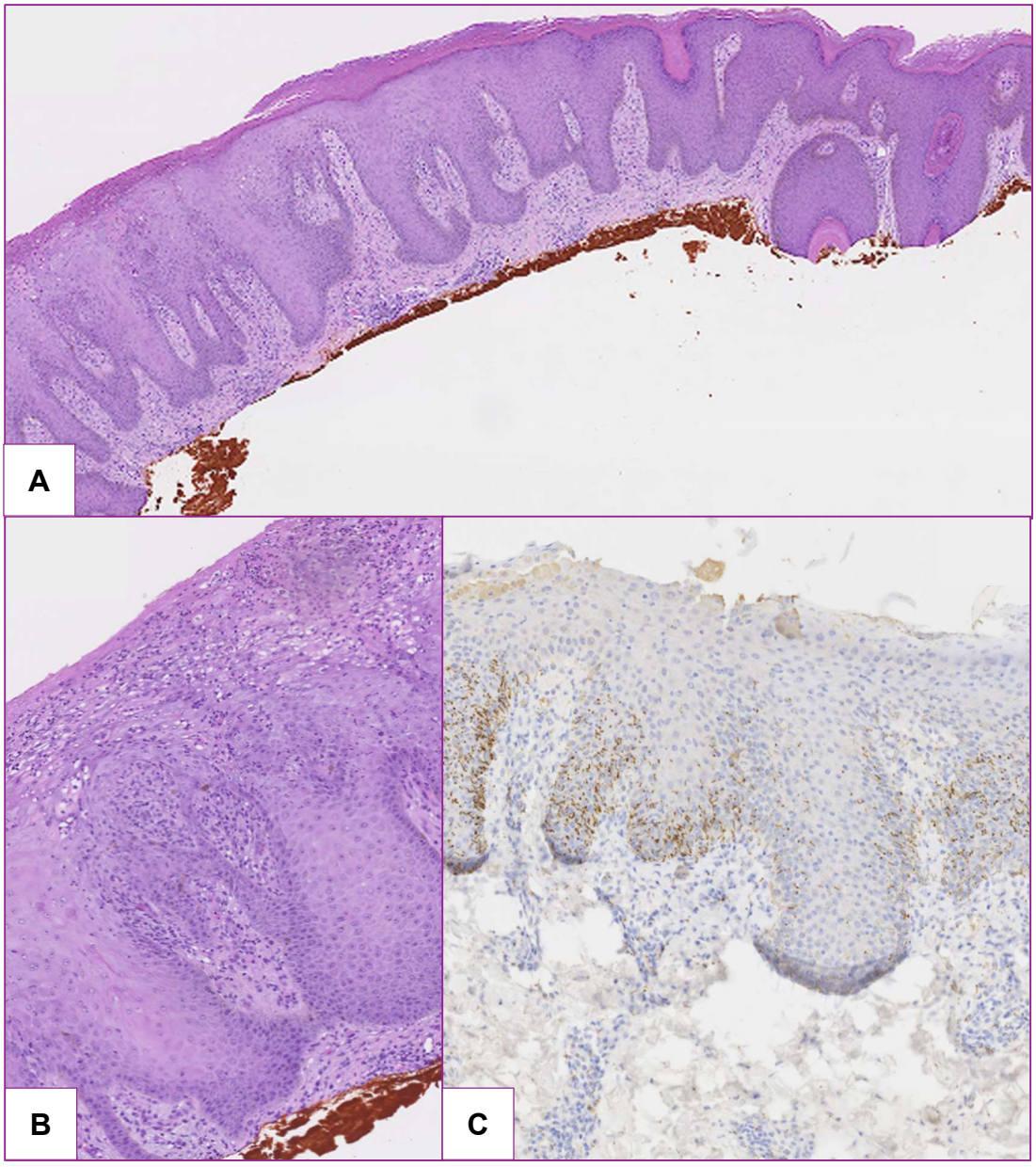

Figure 2. Immunohistochemical staining of secondary syphilis biopsied lesions demonstrate the presence of multiple spirochetes throughout the epidermis concentrating in the stratum granulosum, spinosum and basale, with some infiltrating through to the papillary layer of the dermis.

Morphologically atypical presentations of secondary syphilis have included annular plaques and nodules.[4,5] Annular lesions

syphilis, especially among children and individuals with darker skin.[6] Moreover, multiple case reports on the topic suggests

that annular lesions in atypical cases of secondary syphilis are most common in the anogenital region, as well as the palms and soles.[3,4]

Both distribution of lesions and the morphology of the lesions described in this case were atypical for a presentation of secondary syphilis. While other annular manifestations of secondary syphilis have been recorded, the focal distribution of annular lesions to the trunk is exceedingly unusual.[3,4]

CONCLUSION

In conclusion, the clinical diagnosis of secondary syphilis can be very challenging given the polymorphic nature of disease presentation. A focal distribution of lesions cannot rule out the diagnosis. Appropriate diagnostic confirmation via immunohistochemical staining and microscopic identification of *T. pallidum* spirochetes may be necessary prior to starting the appropriate treatment. Atypical manifestations of secondary syphilis should be kept in mind given the risk of resulting end organ damage that can occur if left untreated.

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