Possible Secondary Syphilis Presenting as Facial Vegetative, “Split Pea”-like Plaques

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Introduction

Syphilis has been described as the “great mimicker” due to its protean ability to present with many different cutaneous phenotypes.[1] There have been few reports of secondary syphilis in adults that have a pemphigus-like presentation.[2,3] Here we report a case of secondary syphilis presenting with facial vegetative plaques reminiscent of pemphigus vegetans.

Case

A 25-year-old woman presented with 1-month history of crusted plaques around the nose and mouth with accompanying papules of the tongue. These plaques began as small “pimple-like” papules, which subsequently expanded. Physical exam revealed a large crusted plaque of the left nasolabial fold extending to the left superior cutaneous lip and a pink, scaly “split pea”-like plaque of the right oral commissure (**Figure 1**) and superficial mucosal erosions along the tongue. Skin biopsy revealed pseudoepitheliomatous hyperplasia of the epidermis (**Figure 2A**) and dense dermal lymphohistiocytic inflammation admixed with plasma cells (**Figure 2B**), suggestive of an infectious process. Spirochete, PAS, and FITE stains were negative. Wound culture demonstrated moderate *Staphylococcus aureus* and *Streptococcus pyogenes.* AFB and fungal cultures were negative. Due to suspected impetiginization, the patient was empirically treated with doxycycline 100mg PO BID and mupirocin 2% ointment for two weeks. Upon communication of pathology results via telephone after 2 weeks, the patient reported complete resolution of the eruption. Additional Rapid Plasma Reagin and HIV serological testing were recommended, though the patient had opted to forego further testing at that time.

Case *(continued)*

While not confirmatory, the acute timeline of the eruption, the keratotic “split pea”-like plaques of the oral commissure and left nasolabial fold, the mucosal erosions, the findings of dense plasmocytic infiltrate, and the rapid resolution with oral doxycycline are suggestive of secondary syphilis.

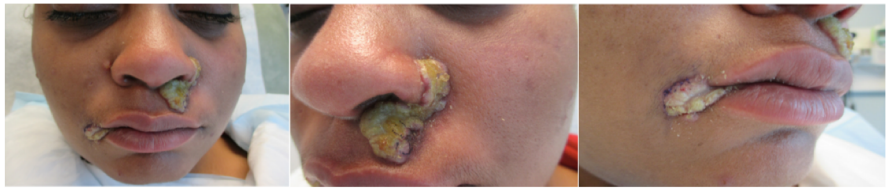

Figure 1. Pink vegetative plaques with overlying yellow crusting of the left nasolabial fold extending to left superior cutaneous lip and right oral commissure

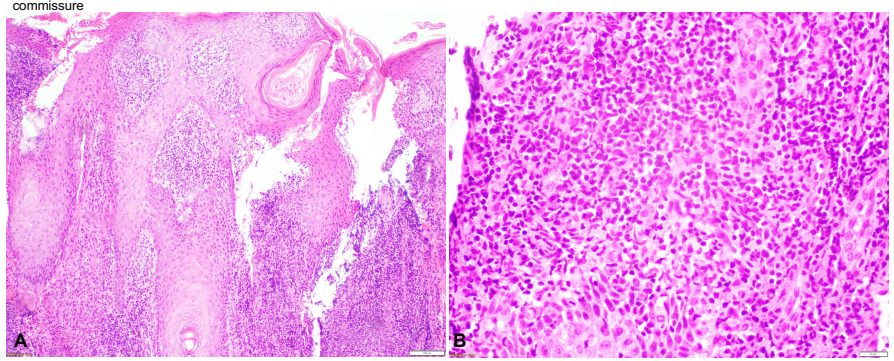

Figure 2. Histopathology **(A)** 10x. Pseudoepitheliomatous hyperplasia with acutely inflamed scaly crust in epidermis **(B)** 40x. Dense lymphohistiocytic and plasmocytic inflammation of the superficial dermis

Discussion

Syphilis can prove to be a diagnostic challenge due to its diverse spectrum of dermatologic manifestations. Other reports have described secondary syphilis to be masquerading as a pemphigus-like eruption on the torso.[2] Our case is another rare example of possible secondary syphilis presenting similarly to pemphigus, more specifically the mucocutaneous variant of pemphigus vegetans. Importantly, atypical presentations of syphilis may delay diagnosis and appropriate treatment.

In certain instances where a confirmatory diagnosis of syphilis cannot be made, due to unobtainable serological testing such as in our case, empiric treatment for syphilis coupled with a high suspicion may yield therapeutic success.

Conclusions

With rising incidence of sexually transmitted infections, including syphilis, it is critical for clinicians to familiarize themselves with various cutaneous manifestations of syphilis. While rare, “split pea”-like papules and plaques along the oral commissure represent an unusual and highly contagious variant of secondary syphilis. Given the reputation of syphilis as the great mimicker of other infectious and inflammatory diseases, clinicians should maintain a high threshold of suspicion for the diagnosis.

References

1. Dourmishev LA, Dourmishev AL. Syphilis: uncommon presentations in adults. Clin Dermatol. 2005;23(6):555-564. doi:10.1016/j.clindermatol.2005.01.015
2. Kopelman H, Lin A, Jorizzo JL. A pemphigus-like presentation of secondary syphilis. JAAD Case Rep. 2019;5(10):861-864. Published 2019 Sep 24. doi:10.1016/j.jdcr.2019.07.021
3. Mignogna MD, Fortuna G, Leuci S, Mignogna C, Delfino M. Secondary syphilis mimicking pemphigus vulgaris. J Eur Acad Dermatol Venereol. 2009;23(4):479-480. doi:10.1111/j.1468-3083.2008.02926.x