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The Biett Collarette as an Important Dermoscopic finding of Secondary Syphilis

Malvika Ramesh¹, Jeremy Purser MD², Michelle Tarbox MD²



Figure 1. Dermoscopic finding of Biett collarette: peripheral scaling around individual lesions consistent with early syphilis

Syphilis is a sexually transmitted disease caused by the bacteria *Treponema pallidum*. The disease progresses through stages with different symptoms and organ systems affected at each stage. Primary syphilis is characterized by a painless chancre that appears on the genitals, while secondary



Figure 2. Erythematous papular rash: composed of 5-8mm erythematous papules present on the patient's trunk and lower extremities.

syphilis occurs about 6-8 weeks later and historically affects the skin.

Secondary syphilis is characterized by various cutaneous manifestations and can be difficult to diagnose due to the variability of presentations and similarity to other

September 2022 Volume 6 Issue 5

¹ Texas Tech University Health Sciences Center, School of Medicine, Lubbock, TX

² Texas Tech University Health Sciences Center, Department of Dermatology, Lubbock, TX

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dermatologic conditions.¹ Macules, papules, and pustules can occur together and are often accompanied by generalized lymphadenopathy and nonspecific symptoms such as fever, chills, fatigue.

Early recognition of symptoms and initiation of treatment are critical for preventing progression. The variety of cutaneous presentations seen in secondary syphilis can mimic other dermatologic pathologies and make diagnosis difficult. However, the individual lesions seen in secondary syphilis can be distinguished by a peripheral scale called Biett's Collarette [Figure 1] and dermoscopy can aid physicians in clueing into the right diagnosis via visualization of this unique finding. This can greatly improve the diagnosis of syphilis when nonspecific lesions are seen early in the disease course, and we encourage providers to use dermoscopy to aid in the diagnosis when presented with a vague maculopapular rash and suspicion for syphilis.

Here we present a 44-year-old female who presented to an outpatient clinic with a rash [Figure 2] that began 1 month prior. The rash arose on her lower legs and ankles and spread to her chest, groin, and face. She denied any change in the size or nature of the lesions. The rash was pruritic. On exam, the rash was composed of 4-8 mm erythematous papules with a collarette of scale appearing throughout the lower extremities to trunk palmoplantar involvement was noted. Punch biopsy of the rash and serologic work up for syphilis were done. Dermoscopic findings of her rash showed peripheral scaling around individual lesions consistent with a Biett Collarette (Figures 1 and 2), thus cluing into the underlying diagnosis of Syphilis.^{2,3} Biett collarette can be seen as peripheral scaling in early syphilis surrounding light pink or erythematous macules and later in syphilis surrounding erythematous papules.⁴ Biopsy as well as reactive plasma reagin (RPR) and Fluorescent treponemal antibody absorption (FTA-ABS) testing confirmed the diagnosis. The patient was instructed to follow up with the health department regarding further syphilis treatment and serologic monitoring.

As seen in this case, dermoscopy can assist the clinician in recognizing Biett's sign when presented with a vague annular maculopapular rash.⁵ ³ This article aims to aid and encourage dermoscopic evaluation of rashes suspect of secondary syphilis to help in the diagnosis of a historically difficult to diagnosis condition.

Conflict of Interest Disclosures: None

Funding: None

Corresponding Author:

Malvika Ramesh Texas Tech School of Medicine 3601 4th St Lubbock, TX 79430

Email: malvika.ramesh@hotmail.com

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