



## Secondary Syphilis Mimicking Leprosy Type 1 Reaction

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### Abstract

Syphilis and leprosy have cutaneous manifestations with great lesional polymorphism with subsequent difficult differential diagnosis. Both have additional tests that, in certain situations, are inconclusive, making it difficult to confirm the clinical diagnosis. In medical literature there are several clinical cases reported in which patients with syphilis were erroneously diagnosed and treated as having leprosy. Physicians need to maintain a high index of suspicion for the diagnosis of syphilis.

### Key words:

Syphilis; Leprosy; Diagnosis

### Case Report

Female patient, 37 years-old, maidservant, resident of Rio de Janeiro (Brazil), with asymptomatic skin lesions for two months was referred to the Souza Araujo Outpatient clinic for investigation of leprosy in a reactive state. She denied previous genital lesions or fever. On examination, were present infiltrated erythematous lesions of different sizes and conformations, some slightly scaling, located all over the skin (Figure 1 picture 1,2,3 and 4). Lesion biopsies (histopathology and parasite/fungi/bacteria isolation) and complementary tests were performed. At histopathological examination, granulomatous epithelioid infiltrate with presence of immature plasma cells, perivascular, perineural and periannexal, focally occupying the entire length of the dermis (figure A,B,C). No presence of acid-fast bacilli in skin smears or biopsies, which eliminated leprosy as the diagnosis. The serologic testing for HIV was negative and VDRL (Venereal Disease Research Laboratory) was reactive with a titer of 1/32; FTA-Abs (Fluorescent treponemal antibody Absorption) positive and cerebrospinal fluid analysis was performed with nonreactive VDRL, which supported the diagnosis of secondary syphilis. She was treated with 2.4 million units of benzathine benzyl penicillin by intramuscular injection, once weekly for two consecutive weeks. One month after the end of therapy a complete resolution with residual hyperpigmentation was observed. The patient is asked to repeat quantitative nontreponemal serologic testing (VDRL) and clinical evaluation at 3, 6, and 12 months to be sure that treatment is successful and the infection cured. Secondary Syphilis ("the great imitator") and leprosy have cutaneous manifestations with great lesional polymorphism that difficult the

differential diagnosis [1,2]. Both have additional tests that, in certain situations, are inconclusive, making it difficult to confirm the clinical diagnosis [2,3]. There are several cases in the literature in which patients with syphilis were erroneously diagnosed and treated as having leprosy [3,4]. The invasion of the central nervous system by *Treponema pallidum* may appear early during the course of disease and the diagnosis of confirmed neuro syphilis is based on the VDRL in cerebrospinal fluid [5], even being a HIV negative patient. In conclusion, we should not forget that the most important for the diagnosis of syphilis is still maintaining a high index of clinical suspicion.



Figure 1: Pictures 1, 2, 3 and 4: Infiltrated erythematous papules and plaques of different sizes and conformations, some slightly scaling, located all over the skin. Figures A, B and C: Histopathological examination: Granulomatous epithelioid infiltrate with presence of immature plasma cells, perivascular, perineural and periannexal, focally occupying the entire length of the dermis.

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