Cutaneous and Visceral Syphilis: Unusual Presentation

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ABSTRACT
Syphilis is the most common sexually transmitted disease in the world, showing a high incidence rate in our country. Its clinical course is well established and universally accepted, although there are cases in which the diversity of its signs and symptoms can make diagnosis a challenge. This is the reason why it is known as a "thousand faces" or a "great imitator" disease. Authors present a case report with hepatic involvement, which is rare when syphilis is concerned.
Keywords: syphilis, sexually transmitted diseases, treponematosis, STD.

INTRODUCTION

Syphilis is a disease with a very unusual clinical diversity, compromising skin and internal organs, and it is one of the most frequent sexually tract infections (STI) both around the world and in our country. In Brazil, in 2003, the estimate of the population between 15 and 49 years was of 843,300 syphilis cases[1]. From 2005 to June, 2012, 57,700 cases of syphilis in pregnant women were notified to SINAN (a notification system held by Brazilian Health Ministry), most of which occurred in the Southeast and Northeast regions, with 21,941 (38.0%) and 14,828 (25.7%) cases, respectively[2]. Syphilis clinical symptoms, although already determined by the Medical Academy, sometimes brings exuberant and unpredictable symptoms, leading to a difficulty of the diagnosis as well as to a delay in treatment, and often, favouring the evolution to severe conditions[1,3,4].

Secondary syphilis, a highly contagious stage, is the logical sequence of untreated primary syphilis, and it is characterised by an ulceration that appears from 1 to 6 months (usually 6 to 8 weeks) after the primary lesion has disappeared[1,4]. It is an often erythematous ulceration that appears symmetrically on the trunk and limbs, and may reach the palmoplantar region. Although this description has already been established, other forms of manifestation can also be observed[3,5].

The most reported secondary syphilis general symptoms are the following: uneasiness (23-46%), headache (9-46%), fever (5-39%), pruritus (42%), hyporexia (25%). Other symptoms, less common, are: eye pain, bone pain, arthralgia, meningism, iritis and hoarseness. More specific signs occur in the following frequencies: skin rash (88-100%), lymphadenopathy (85-89%), primary cancer (25-43%), flat condyloma (9-44%), hepatosplenomegaly (23%), mucous plaques (7-12%) and alopecia (3-11%). Rare manifestations include: acute meningitis, that occurs in approximately 2% of patients, hepatitis, renal disease, cardiac disease, gastritis, proctitis, ulcerative colitis, arthritis, periostitis, optic neuritis, iritis and uveitis[3,4,6-8].

This work demonstrates cutaneous and liver co-related aspects, of treponematosis etiology, in a HIV-seronegative patient.

CASE REPORT

An adult female patient sought several health professionals due to the eruption of disseminated lesions through her face. Patient made use of various topical treatments (*sic*) with no improvement. As conditions became worse, patient was sent to our Institution for evaluation. During our first consultation, apart from the cutaneous lesions, she complained about abdominal pain in the right upper quadrant. Patient received clinical care, and laboratory tests were requested. On physical examination, patient presented pain on palpation of the right hypochondrium and palpable liver 2 cm from the costal right edge; dermatological examination showed erythematous-violaceous papules, scattered over the centrofacial region and forehead (**Figure 1**). Some lesions, especially those located in the periorificial and nasal regions presented vegetant aspect. A lesion in the retroauricular region presented Biett's collarete in its surface.

On palpation of ganglions a difuse *micropolyadenomegaly* was noted. It was also observed conjunctive and icteric teguments. Our diagnosis impressions were as follows: histoplasmosis, paracoccidioidomycosis, cryptococcosis, hepatitis, and syphilis. Tests required for diagnosis elucidation were the following: cutaneous biopsy, with material sent for histopathology and culture, VDRL, FTA-Abs and serology for fungi and bacteria, HIV and hepatitis types A, B and C. The results were as follows: VDRL: 1/256; TPH: positive; gamma-glutamyltransferase: 275; alkaline phosphatase: 162; alanine transaminase: 168; aspartate aminotransferase: 82; culture: showed no growth of fungus or bacteria; anti-HIV: negative; other serologies: negative; cutaneous biopsy with infiltrated limph-histio-plasmocitary around congestion vessels, surrounding but not invading the nervous filament (**Figure 2**).

Diagnosis of secondary syphilis was established, and the specific treatment based on the control manual of the Brazilian National Program of STD/Aids was indicated. There was a favourable evolution of the symptoms, with the resolution of abdominal pain, normalisation of liver enzymes and resolution of icterus as well (**Figure 3**). The results of laboratory tests 30 days after the third dose of benzathine penicillin were the following: gamma-gluta-

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myltransferase: 38; alkaline phosphatase: 82; alanine transaminase: 22; aspartate aminotransferase: 18.

DISCUSSION

It should be noted that syphilis dermatological manifestations are very clear, but the systemic involvement is still not so well established. It is possible that the association with other organs in earlier stages, besides skin, is more frequent than one can imagine. Specialized services have observed cutaneous stages overlay even in HIV-seronegative patients, apart from early onset of systemic symptoms in this same group. Syphilis classification in stages in only didactic, and as it is an infection,

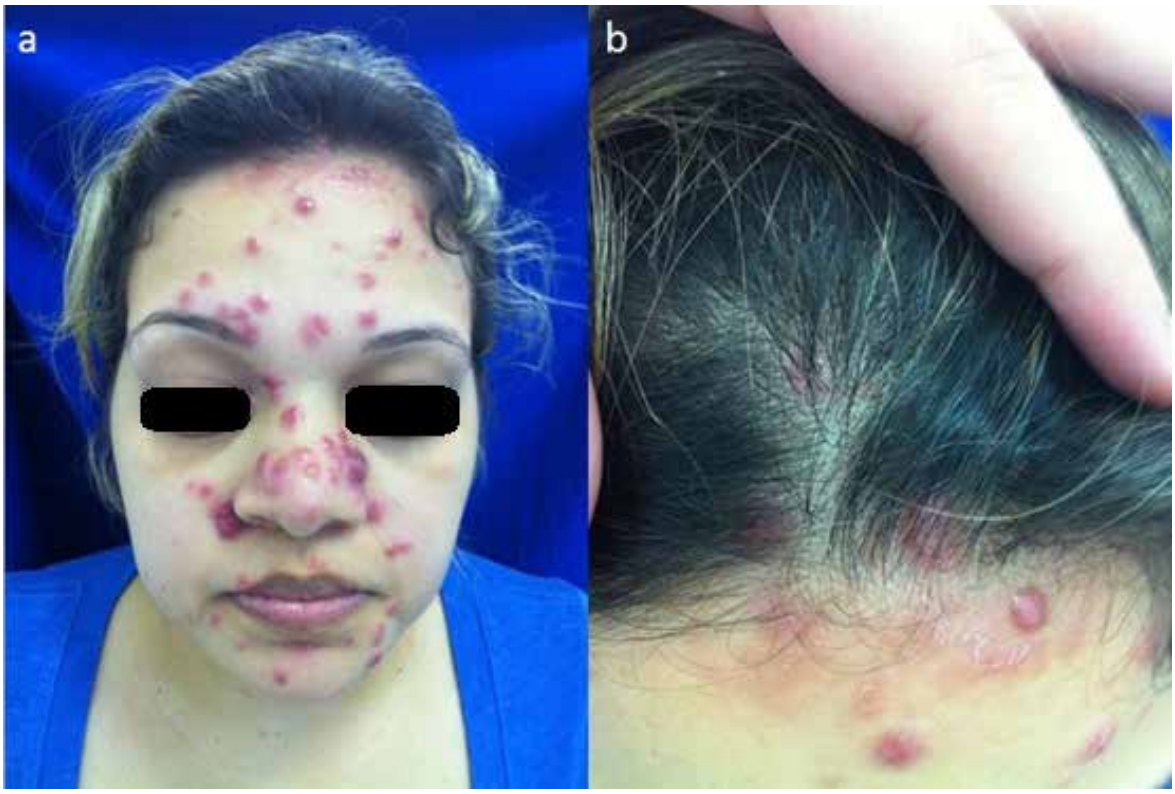

Figure 1 – Erythematous-violaceous papules scattered over the centrofacial region and forehead.

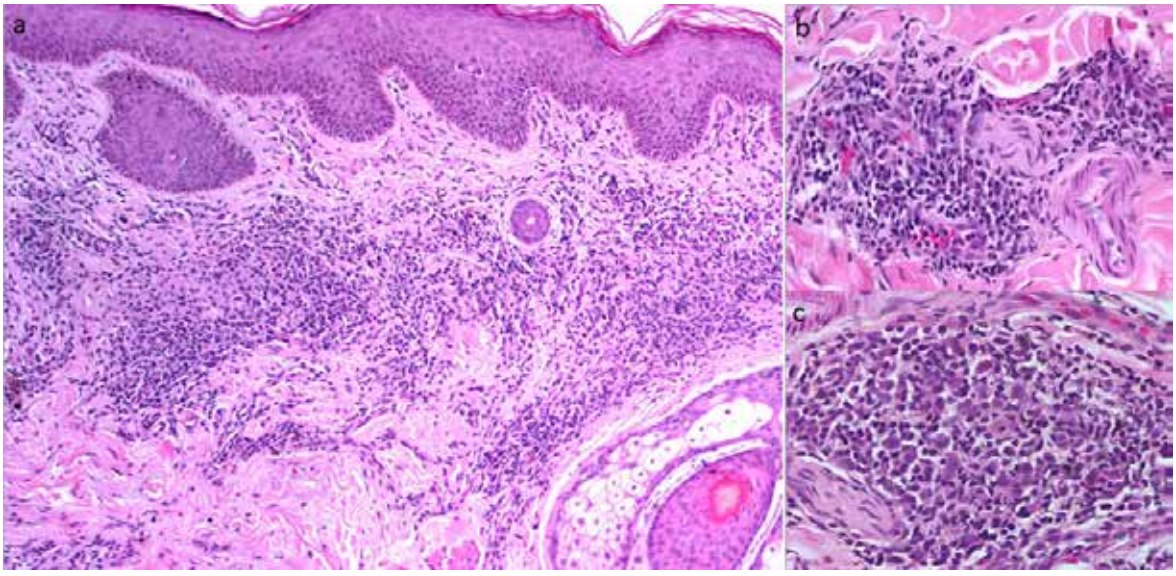

Figure 2 - (a): Smallest increase (10x): thickened epidermis, with moderate exocytosis and dermis with dense mononuclear infiltrate forming a stripe in the superficial portion; (b): average increase (20x): infiltrated limph-histio-plasmocitary around congestion vessels, without invading the nervous filament; (c): largest increase (40x): detail of the inflammatory infiltrate with numerous plasmocytes, macrophages and lymphocytes with filaments without changes in the lower left corner.

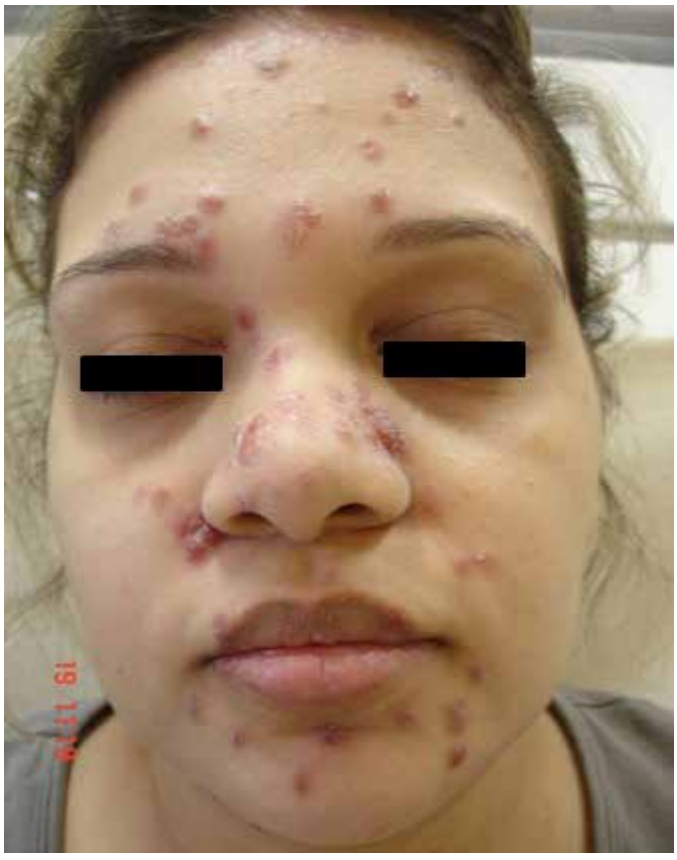

Figure 3 - Lesions' reduction after 7 days of the first dose of benzathine penicillin 2.400.000.

when not recognized and correctly treated, the disease can evolve into serious damage to 1/3 of cases.

The liver damage in syphilis, although rare, has been recognized for more than 400 years. It is a nosological entity well characterized, and it is estimated to occur in about 0.2% of syphilis cases. Although the pathogenic mechanism underlying liver syphilitic disease is unknown, various hypotheses have been proposed to explain it, from the direct inoculation of the etiological agent in the portal venous system (associated with a period of bacteremia that occurs on the secondary phase of the disease) to the hepatocyte injury mediated by immune complexes, which is most often asymptomatic[9,10].

Abdominal pain, hepatomegaly and icterus are clinically observed in hepatitis triggered by syphilis. Laboratory marks it as a cholestatic pattern, characterized by a discreet increase of transaminasis and bilirubin, and a largest increase of alkaline phosphatase and gamma-GT[11,12]. Although there are case reports in literature of fulminant hepatitis, most cases present clinical healing and normalization of liver enzymes with the correct treatment of syphilis[12,13].

A diagnosis criterion of syphilitic hepatitis should take into consideration the following: elevation of serum marker enzymes activities of liver damage and serological evidence of syphilis, associated with clinical manifestations suggestive of secondary syphilis; exclusion of other causes which may induce to liver damage; rapid recovery of hepatic function after introduction of antibiotic medication. The prognosis of syphilitic hepatitis is generally favourable, although there are rare cases of acute liver failure described in literature[9,13,14].

CONCLUSION

Patient presented cutaneous lesions and hepatitis as a systemic involvement. We believe this condition was caused by treponematosis, since all other possible causes for the patient's hepatitis (viral hepatitis, alcoholism and drug use) were rejected, and patient also showed clinical and laboratory improvements due to syphilis treatment.

By presenting this case, we call the attention to the fact that internal organs may be concomitantly affected by syphilis cutaneous manifestation, and it shall be considered as a systemic disease from its beginning.

Conflict of interest

There was no conflict of interest.

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