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Case Report

Secondary Syphilis Presenting As Palmoplantar Psoriasis

Serena Gianfaldoni[1*], Georgi Tchernev[2], Uwe Wollina[3], Roberto Gianfaldoni[1], Torello Lotti[4]

[1]University G. Marconi of Rome, Dermatology and Venereology, Rome 00192, Italy; [2]Medical Institute of the Ministry of Interior, Dermatology, Venereology and Dermatologic Surgery; Onkoderma, private clinic for dermatologic surgery, Dermatology and Surgery, Sofia 1606, Bulgaria; [3]Krankenhaus Dresden-Friedrichstadt, Department of Dermatology and Venereology, Dresden, Sachsen Germany; [4]Univerisity G. Marconi of Rome, Dermatology and Venereology, Rome, Italy; Universitario di Ruolo, Dipartimento di Scienze Dermatologiche, Università degli Studi di Firenze, Facoltà di Medicina e Chirurgia, Dermatology, Via Vittoria Colonna 11, Rome 00186, Italy

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***Correspondence:** Serena Gianfaldoni. University G. Marconi of Rome, Dermatology and Venereology, Rome 00192, Italy. E-mail: serena.gianfaldoni@gmail.com

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Abstract

In a recent past, the incidence of syphilis has increased in various geographical regions. The authors describe a case of secondary syphilis mimicking palmoplantar psoriasis.

Introduction

Recent data underline how syphilis infection has re-emerged as a major public health problem in the last years. Most of the syphilis cases occur in men having sex with men and in HIV-positive patients [1-3]. Multiple partners and non-protected intercourses are frequently reported.

If the primary infection is not properly diagnosed and treated, after 4-10 weeks, the disease evolves in secondary syphilis, characterised by systemic manifestations. Secondary syphilis, also known as the “great imitator”, can present itself in a variety of ways, mimicking, both clinically and histologically, several diseases and making its diagnosis a challenge for clinicians [4-6].

Case report

A 45-years old, homosexual, Caucasian man has been presenting numerous palmoplantar pustular lesions (1-3 cm in diameter), surrounded by a keratotic rim, on an erythematous basis (Fig. 1A-B). The lesions were asymptomatic. They were present by 3-4 months and had shown a rapid extension. At first, they were localised on his palms and, afterwards, also on his sole (Fig. 2).

Figure 1: Palmar lesions (left); Details of palmar lesions: papular lesions (1-3 cm in diameter), surrounded by a keratotic rim (Biett’s collar), on an erythematous basis (right)

History for drug assumption was negative, and he didn't report any contact with local irritants. The patient didn't refer any revealing pathology, except for a mild form of diabetes mellitus. He showed familiarity for psoriasis and diabetes.

Before referring to us, the patient had been evaluated by a colleague dermatologist, who made the diagnosis of palmoplantar psoriasis and prescribed to him a systemic therapy with colchicine. Due to the occurrence of diarrhoea as a side effect, the patient stopped the treatment and started a new therapy with systemic glucocorticoids, which didn't provide any beneficial effects.

Figure 2: Plantar lesions

During the clinical evaluation, we didn't detect psoriatic lesions in other skin areas, neither on the fingers nor in nails. A diffuse lymph-adenopathy was described. The patient had no disturbance of deep sensation, of tendon and oculomotor reflexes. A rheumatologic evaluation showed no apparent joint involvement.

As a result of the clinical and anamnestic valuation, we advised the patient to perform routine blood tests and specific tests for syphilis (RWt, RWI, VDRL, TPHA, FTA-ABS-IgG, FTA-ABS-IgM). Even if European and American guidelines recommend one treponemal test and one non-treponemal test for the diagnosis of syphilis, accordingly to the experience of our laboratory, we performed all the specific to tests to rule out the possibility of a false result.

The routine blood tests were insignificant except for a neutrophilic leucocytosis and an increased VES. Instead, the second ones were positive, confirming our suspect of syphilis (RWt +++, RWI ++, VDRL ++, TPHA ++ 1:2560, FTA-ABS-IgG+ +, FTA-ABS-IgM ++).

We prescribed to the patient diaminocillina therapy (2400000 U.I./week) for four weeks. Moreover, we advised the patient to abstain from sexual activity and to suggest serological tests to his partners. No antiretroviral therapy was prescribed.

The patient has been monitored for the duration of treatment. The antibiotic treatment improved quickly the clinical conditions. Serological tests, one month after that, showed the improvement of the disease.

Discussion

Syphilis is a well-known infectious disease, caused by Treponema pallidum subspecies pallidum, a spirochete bacterium. Usually, the infection is transmitted through sexual contact with an infected partner [7]. In the last years, the incidence of the disease has rapidly increased maybe for changes in sexual activities, increase of HIV-prevalence and immigration phenomenon [8, 9].

After a long replication time at the site of inoculation, characterised by local mucocutaneous manifestations (primary syphilis), T. pallidum rapidly disseminates, through the blood, in the other parts of the body, giving systemic manifestations (secondary syphilis). Secondary syphilis usually starts 4-10 weeks after the primary infection and lasts for several weeks. Because of the variety of clinical manifestation in this stage, secondary syphilis is known as the great imitator and represents one of the more important problems in dermatologic diagnosis [10].

At this stage, patients may be asymptomatic, even if non-specific flu-like symptoms (e.g. fever, headache, malaise) have often been reported. About 75% of patients develop a diffuse and symmetric macular or maculopapular rash [11]. Other typical clinical manifestations include lichenoid, papulopustular, psoriasiform, vesicular or corymbiform lesions [12, 13]. Condylomata lata is another typical presentation of secondary syphilis. It consists of flat eroded papules, usually localised in the genital areas, even if extragenital occurrences have been described [14, 15]. More rarely, lue malignant (nodular-ulcerative syphilis) has been described. It is characterised by erythematous-violaceous or reddish papules and nodules, which evolve into well-defined round or oval, necrotic ulcerated plaques. Lesions are usually multiple, irregularly distributed on the scalp, face, trunk, and extremities [16, 17]. A rapid manifestation, characterised by large papules and plaques covered by a dark crust, has rarely been described too [18].

Finally, secondary syphilis may be characterised by common but less specific alterations, such as pigmentary disorders or alopecia [19, 20]. About 30% of patients have oral lesions, such as maculopapular lesions, ulcerations, leukoplakia like plaques or condyloma lata [21]. Although rare, extra mucocutaneous manifestations of syphilis are

numerous and may interest different districts, such as liver, stomach, neurological and vascular systems [22, 23].

In this report, we have described an unusual case of secondary syphilis characterised by palmoplantar, pustular lesions, surrounded by a keratotic rim, on an erythematous basis. Due to the clinical manifestations and to the familiarity for psoriasis, at first, the case was wrongly diagnosed as pustular palmoplantar psoriasis [24, 25].

The failure of the common antipsoriatic treatments, and a complete examination of the patient, which showed us particular features, such as the presence of Biett's collar and diffuse lymphadenopathy, suggested us the diagnosis of syphilis. The serological tests for syphilis (RWt, RWI, VDRL, TPHA, FTA-ABS-IgG, FTA-ABS-IgM) were highly positive, confirming our diagnosis.

In conclusion, despite being an uncommon disease, the incidence of syphilis has increased in the last years. If not properly treated in the initial stage, the disease tends to evolve in secondary one, which is characterised by a systemic involvement. Secondary syphilis can present in a variety of ways, making its diagnosis extremely difficult. As the re-emerging of syphilis as a major public health problem, we recommend keeping the disease in the list of the differential diagnosis.

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