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CASE REPORT

Nodular secondary syphilis in an immunocompetent woman: Case report and literature review

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ABSTRACT

A 46-year-old woman presented with slightly itching, painless erythematous nodules on the face, neck, and genital area. Initial differential diagnoses included cutaneous lymphoma. We performed punch biopsy on her neck. In histopathology, interface dermatitis with some nodular infiltration of numerous neutrophils and plasma cells was observed, therefore, serologic tests for syphilis were performed. Owing to positive serologic test results and dramatically improved skin lesions after treatment with benzathine penicillin, nodular secondary syphilis was diagnosed. Nodular skin lesions in secondary syphilis are uncommon and often misleading. Our case suggests secondary syphilis should be considered in the differential diagnosis of nodular lesions.

Introduction

Even though the incidence of syphilis has increased since the late 1990s in Western Europe,[1] the reduction in the number of cases of syphilis since the advent of antibiotics has diminished knowledge of the disease.[1] In Korea, venereal disease research laboratory (VDRL) positive rates in the general population have decreased from 2.5% (1977) to 1.1% (1981), to 0.6% (1986), and to 0.4% (1990).[2] Despite the rapid decrease in the positive rates, syphilis in Korea is still more prevalent than in European and North American countries.[2] After steady decline in the late 20th century, reported cases of syphilis have been increasing over the past decade.[3]

Secondary syphilis usually develops 5–12 weeks after infection with *Treponema pallidum* owing to hematogenous dissemination of the spirochete.[4] The cutaneous manifestations characterizing secondary syphilis are usually superficial, classically comprising four major types of rash: macular, papular, papulosquamous, or pustular.[5] Discrete, copper-red, nonpruritic, annular macules, with rare peripheral scaling, are characteristically bilateral, symmetric, more prominent on the upper extremities and, in the early stages, on the palms and soles.[6] However, common forms of clinical presentation are complemented by rare cutaneous manifestations that complicate diagnosis.[7] We report a case presenting a rare form of secondary syphilis with an unusual nodular eruption.

Case Report

A 46-year-old woman presented with painless scaly red nodular lesions of up to 2–3 cm in diameter, and reported mild itching for 20 days duration. These initially appeared on the face and gradually involved the skin of the neck and genital area (Figures 1A–1D). She had no history of other systemic diseases or treatments.

The skin lesions were located on the face, neck, shoulders, upper parts of trunk, and genital area. The skin over the face, particularly on the forehead and chin, showed multiple prominent dome-shaped nodules, measuring 1–3 cm in diameter, which were firm, reddish, and not tender. Mucous membranes, palms, and soles were not affected, and regional lymphadenopathy was absent. She did not show systemic symptoms such as fever, malaise, or weight loss. Initial differential diagnoses included cutaneous lymphoma.

Conflicts of interest: The authors declare that they have no financial or non-financial conflicts of interest related to the subject matter or materials discussed in this article.

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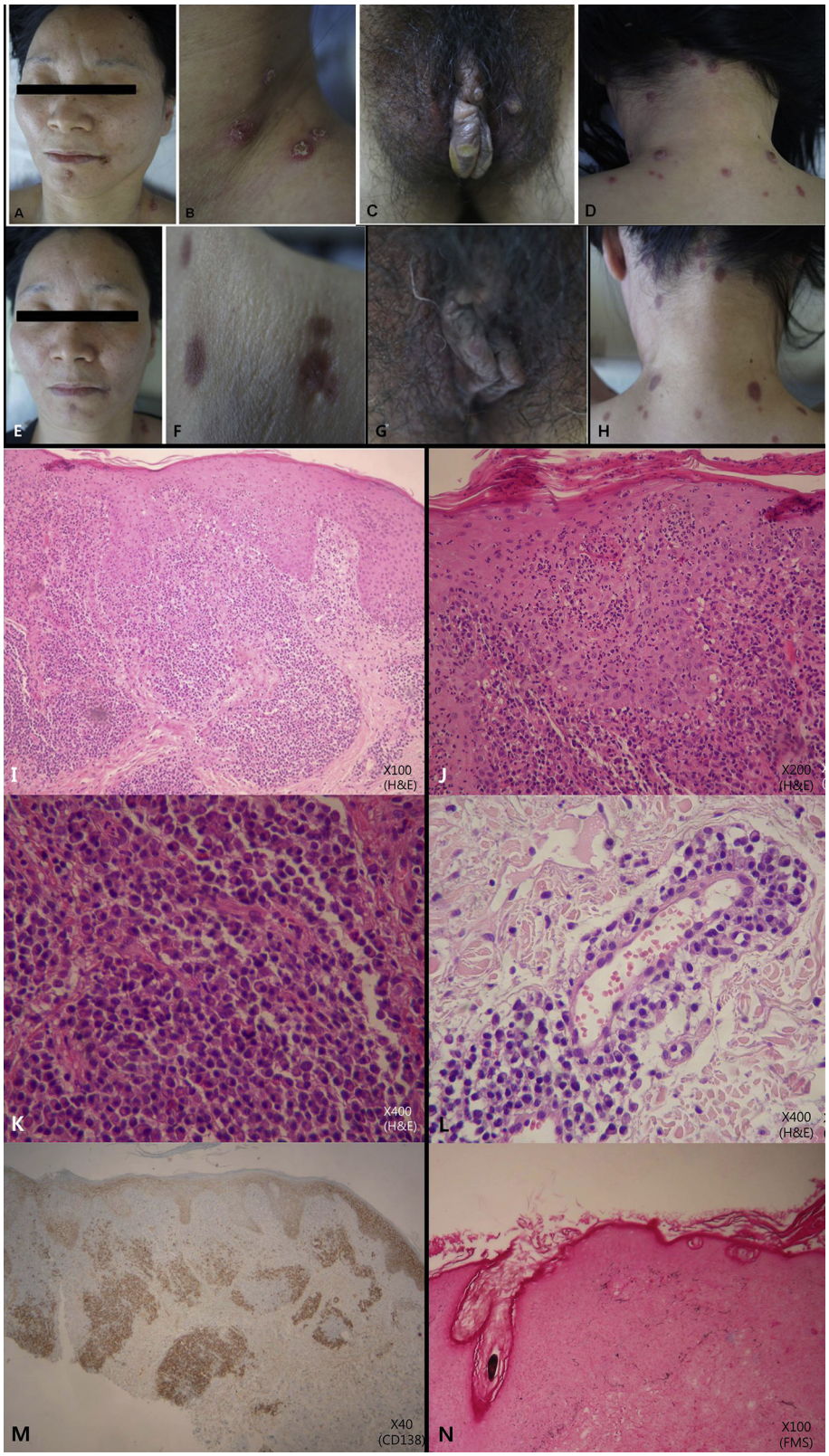

Figure 1 Clinical images of the 46-year-old patient. Several prominent nodules located on the (A) face, (B, D) neck, and (C) genital area. Almost resolved skin lesions on (E) face, (F, H) neck, and (G) genital area 3 weeks after starting therapy. (I, J) Histopathological images of a punch biopsy from a nodular skin lesion at the neck. Interface dermatitis with some nodular infiltration of numerous neutrophils and plasma cells (Hematoxylin and eosin stain, H&E, ×100, ×200). (K, L) Endothelial cell swelling and plasma cells (H&E, ×400). (M) Numerous plasma cells without atypia (CD138, ×40). (N) Slightly decreased melanin granules in the lesion of basal layer but revealed numerous elongate spirochetes (Fontana-Masson silver stain, FMS, ×100).

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