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CASE REPORT

DERMATOSIS PAPULOSA NIGRA IN A WHITE FEMALE AND HER FAMILY MEMBERS

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A 22-year-old white female presented with multiple asymptomatic brownish flat papules on her face and upper neck. The lesions appeared when she was 18 and gradually increased in size and number until now. She had a positive family history of similar lesions in her 25-year-old and 30-year-old sisters, 64-year-old father and 78-year-old grand mother who developed their lesions around puberty. The lesions were histologically consistent with dermatosis papulosa nigra. She was treated with light curettage on one side and cauterization on the other side of the face. The results with both methods were excellent.

Keywords ● dermatosis papulosa nigra ● Caucasian race

Introduction

Dermatosis papulosa nigra (DPN) is a common benign nevoid condition generally occurring in the adult black population.[1] It was first introduced by Castellani in 1925.[2] DPN is considered as an epidermal nevus [3] or hamartoma with follicular origin [4] or a nevoid developmental defect of the pilosebaceous follicles histologically resembling seborrheic keratoses. [5] The main site of involvement is in the malar area and forehead and less commonly in the lower parts of the face, chin neck, chest and back.[5] The incidence in the black population rises from about 5% in the first decade of life to over 40% by the third.[5] The peak incidence rate of the lesions is in the sixth decade of life.[6] Female preponderance was noted at a proportion of roughly 2 : 1,[6] although an equal incidence in both sexes has also been described.[7]

DPN is a very rare condition in the Caucasian race. According to our review of the literature, only four cases have been reported. The first was a Jamaican-born white man reported by Castellani in 1929.[2] The second, a Mexican man with Indian parents reported by Seal and Michael in 1963.[3] An Italian white man with Italian parents described by Binazzi and Simonetti in 1984 was the third person [2] and the fourth was an Iranian man reported by Moayed and Mobini in 1992.[1]

Diagnosis is usually made by clinical examination and histological confirmation. The lesions can be treated with light cauterization,[5] curettage with or without cauterization,[5,8] or cryotherapy.[2]

We believe that our patient is another rare case of DPN in Caucasians.

Case Report

A 22-year-old white female with Caucasian parents presented at our Dermatology Clinic in Bou Ali Hospital in Tehran about 10 months ago. She complained of multiple brownish flat papules about 2 to 4 mm on her forehead, malar area, chin and upper neck. These appeared when she was 18 and had grown in size and number since then. On closer examination, the papules showed a fine verrucous surface similar to small seborrheic keratoses (Figure 1).

The lesions were totally asymptomatic and mostly of cosmetic concern for her. There was a positive family history of similar lesions in her 25-

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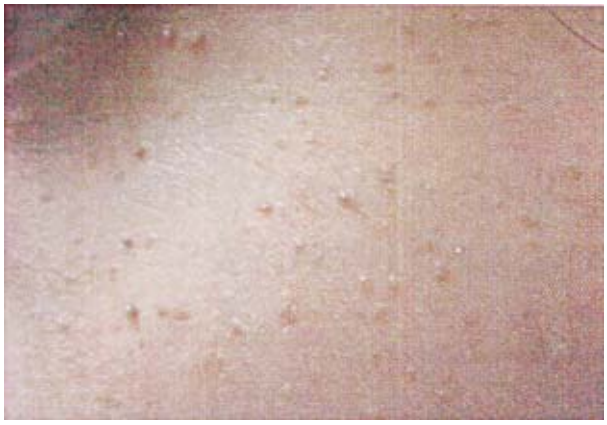

Figure 1. Close-up view of the 22-year-old girl with dermatosis papulosa nigra (DPN).

year-old and 30-year-old sisters, 64-year-old father and 78-year-old grandmother. All of the relatives who were otherwise healthy individuals developed the lesions around the same age as the patient. The lesions were examined histologically and the findings were consistent with DPN; irregular acanthosis, a reticulated pattern of epithelial cell proliferation with hyperkeratosis and an increased melanin pigmentation in the lower epidermis (Figure 2).

Discussion

As mentioned before, DPN is a rare condition in Caucasians and occurs mainly in black adults at a rate of 35 % to 70 %.[3,4,7] It rarely occurs in children.[9] Typical lesions have been described in a few Mexicans, Native Americans, some Asians (especially Filipinos and Vietnamese) and Europeans of Mediterranean origin.[7] Roughly 50 % of the patients reveal a positive family history. Skin color was noted to be a factor in the study by Grimes et al[6] as patients with deeper hues of skin pigmentation tended to have more lesions. Our case was one of the rare Caucasian patients. As such, we decided to report this case to include strikingly typical features such as the age of onset, morphology, distribution of the lesions, positive family history and histologic characteristics such as acanthosis, epithelial cell proliferation in a reticular pattern and melanin pigmentation in the lower epidermis.

One side of her face was treated by light curettage and the other side by cauterization. Both methods led to excellent results with no recurrence after 5 months.

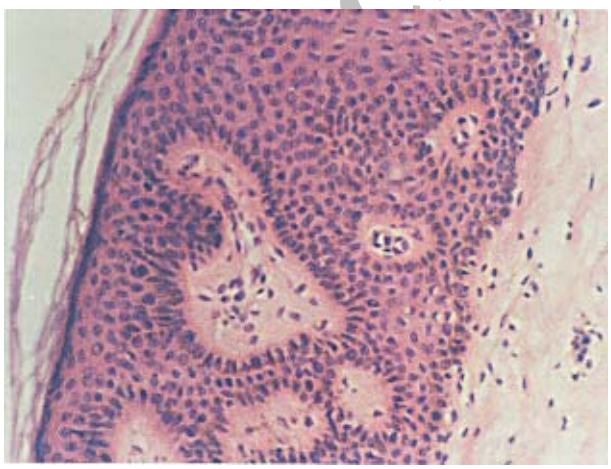

Figure 2. Histologic findings of DPN depicting irregular acanthosis, a reticulated pattern of epithelial cell proliferation (H & E staining, x1000).

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