



ATROPHODERMA OF PASINI AND PIERINI - A CASE REPORT

Dermatology

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ABSTRACT

Atrophoderma of Pasini and Pierini is speculated to be an atrophic variant of morphea. *Borrelia burgdorferi* is thought to play a role in the pathogenesis of this condition. Lesions are predominantly seen over the trunk. We report a case of Atrophoderma of Pasini and Pierini on the back of an adolescent male.

KEYWORDS

Borrelia burgdorferi, 'swiss cheese' appearance, cliff-drop border.

Introduction:

Atrophoderma of Pasini and Pierini thought to be a variant of atrophic morphea^{1,3}, usually presents as single or multiple depressed plaques mainly over the trunk, commonly seen during childhood or adolescence.

Case report:

A 20-year-old male came to the skin OPD with complaints of a pigmented plaque over the back which was present for the past 10 years. Patient was apparently normal 10 years back after which he noticed a small pigmented patch over the back which progressively increased in size over the past 10 years. Patient was otherwise asymptomatic. On examination, a well defined atrophic plaque of size 5*6 cm with irregular cliff-drop border was seen on the upper back. Lesion had a 'swiss cheese' appearance.

Two skin biopsies were taken, one from the lesion and the other from normal skin, 10 cms away from the lesion. Histopathological examination of the lesion showed atrophic epidermis with thickened collagen in the dermis and sparse inflammatory infiltrate. HPE of the adjacent skin showed normal epidermis and dermis with appendages.

Discussion:

Atrophoderma of Pasini and Pierini is a rare skin disorder, considered to be a variant of atrophic morphea. *Borrelia burgdorferi* is found to be a causative agent of Atrophoderma of Pasini and Pierini³.

Clinically, oval or round, solitary or multiple depressed plaques are seen over the trunk and extremities. It usually presents as a slate grey or brown patch with a classical 'swiss cheese'⁴ appearance and a characteristic cliff-drop border.

Histopathological examination will show atrophic epidermis, increased pigmentation in the stratum germinatum, edematous collagen and scanty elastic tissues. Chronic inflammatory infiltrates can be seen around the vessels of dermis. In the later stages of the disease, homogenous collagen will be seen as clumps in the lower dermis. IgM and C3 can be seen around the blood vessels in Immunofluorescence study⁵.

A close differential diagnosis of APP is morphea, which has an induration and a lilac ring around the lesion, and lacks the distinguishing cliff drop border. Sclerosis which is a prominent early feature in morphea, is late or absent in atrophoderma.

Due to its association with *Borrelia burgdorferi* antibiotics like doxycycline or tetracycline can be effective. Other modalities of treatment include topical calcineurin inhibitors, hydroxychloroquine in case of associated lupus and PUVA therapy^{6,7}. Clinically Q-switched Alexandrite laser was found to reduce pigmentation⁹.

CONCLUSION: A diagnosis of Atrophoderma of Pasini and Pierini

should be considered when a young male presents with an atrophic plaque having a classical swiss cheese appearance and characteristic cliff-drop border.

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Figure 1: Clinical pictures of APP

A: Atrophic plaque on the back
B: Prominent cliff-drop border



Figure 2: Histopathological pictures of APP and adjacent normal skin

A: Scanning view of APP showing atrophy of epidermis with thick collagen bundles in the dermis

B: Scanning view of adjacent normal skin showing normal epidermis and dermis

C: Low power view of APP showing the collagen bundles more prominently

D: Low power view of adjacent normal skin

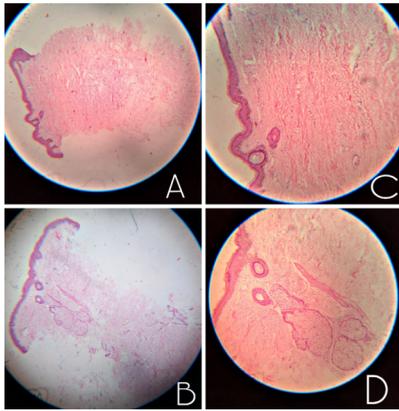
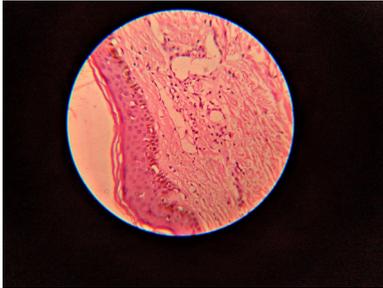


Figure 3: High power view of APP showing thickened collagen within the dermis with marked atrophy of the epidermis



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