Dermatology Practical & Conceptual

Dermatoscopic Features of Angiomatoid Spitz Nevus: a Case Report

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Introduction

Angiomatoid Spitz nevus (SN) is an uncommon histopathological variant of SN that is most frequently seen on the extremities of children and young adults. Dermatoscopic features of this unusual variant have rarely been reported [1,2]. We presented a 19-year-old female diagnosed with angiomatoid SN based on the clinical, dermatoscopic, and histopathological findings.

Case Presentation

An otherwise healthy 19-year-old female presented with an asymptomatic, slowly growing, nodule for 4 months. Physical examination demonstrated an exophytic, non-tender, erythematous nodule 0.8 x 0.6 cm in diameter on the right pretibial region (Figure 1A). Medical history and systematic review were unremarkable. Polarized-light dermatoscopic examination showed a red structureless background, white lines reticular, numerous coiled vessels without specific arrangement, and surface scale (Figure 1B). The lesion was totally excised with the preliminary diagnoses of hemangioma, SN, dermatofibroma, amelanotic melanoma, and eccrine poroma. Histopathological examination showed a symmetrical lesion composed of predominantly spindle and less often epithelioid cells containing eosinophilic cytoplasm. The cells were distributed mostly in vertically oriented nests along the dermo-epidermal junction. Maturation to the depth was evident. There were numerous superficial small and thin-walled blood vessels within the fibrotic collagen bundles. A dense, diffuse lymphocyte-predominant inflammatory infiltrate was also observed (Figure 1, C and D; Figure 2A). No significant atypia and mitotic activity were detected. Immunohistochemical staining HMB-45 (Figure 2B) and Melan-A were focally positive within the superficial dermal nests, while p16 (Figure 2C) and S100 showed diffuse positivity. A diagnosis of angiomatoid SN was made based on the clinical, dermatoscopic, histopathological and immunohistochemical features.

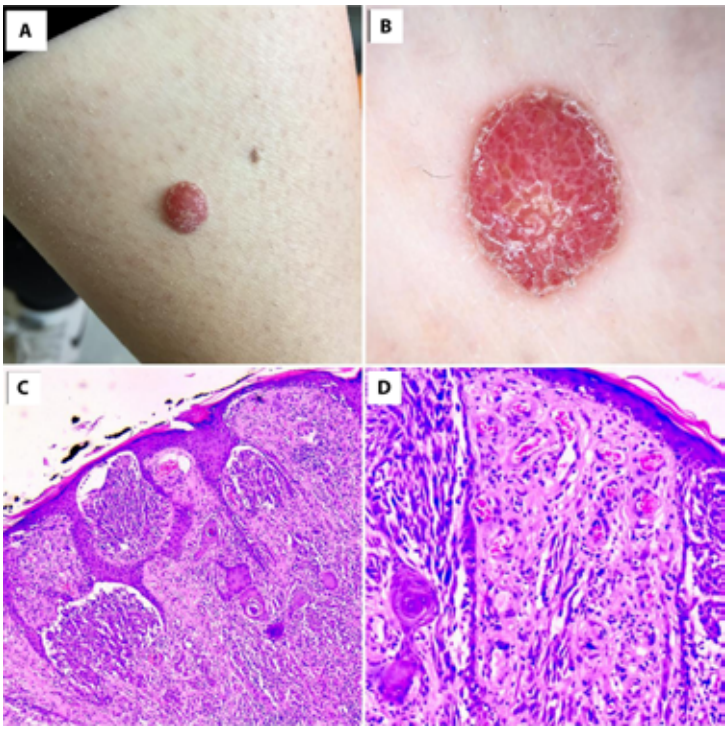

Figure 1. (A) A hemangioma-like dome-shaped nodular lesion on the right pretibial region. (B) Dermatoscopy revealed red structureless background, white lines reticular, coiled vessels without specific arrangement and surface scale. (C;D) Histopathological sections showed hyperkeratosis, hypergranulosis, vertically-oriented nests mainly composed of spindle cells and numerous small and thin walled blood vessels within the superficial dermis (H&E, x50).

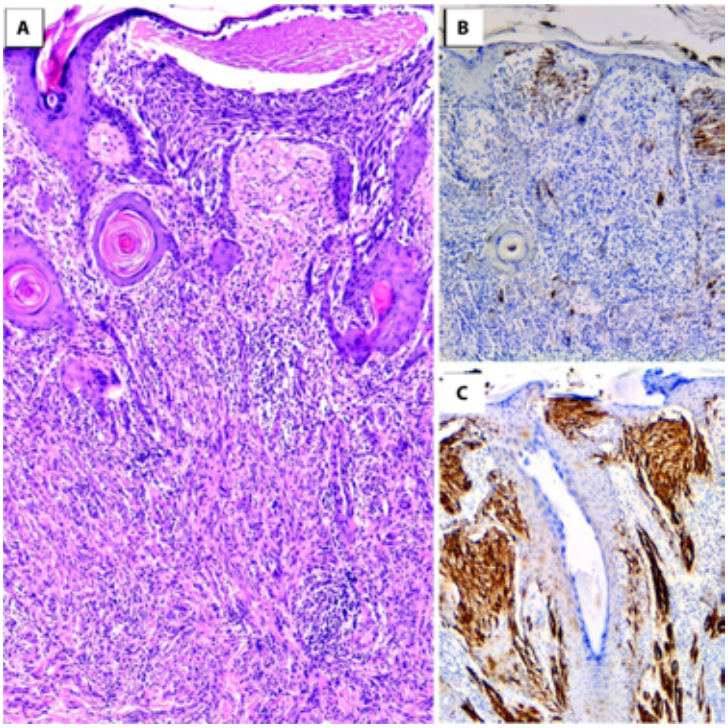

Figure 2. (A) The tumor cells show maturation with depth and break up into single melanocytes at the base of the lesion (H&E, x50). (B) HMB45 antibody showed staining confined to junctional and superficial dermal component (x50). (C) The lesion showed diffuse and strongly positive staining for p16 (x50).

The consent form was taken from the patient.

Conclusions

SN may present with a wide spectrum of clinical and histopathological appearance. Desmoplastic, angiomatoid, verrucous/polypoid, plexiform, pagetoid, halo, myxoid, granulomatous, and tubular variants have been described in the relevant literature [1]. Angiomatoid SN is characterized by marked proliferation of blood vessels around the intradermal melanocytes of SN and clinically manifests as a hemangioma-like nodular lesion.

Moscarella et a. reported a total of 307 cutaneous lesions with a histopathological diagnosis of Spitz/Reed nevus. Five out of them were angiomatoid Spitz nevus which are dermatoscopically showed different combinations of central pink to white areas, milky red color, peripheral network, brown to grey streaks, dotted vessels, and linear vessels [1]. Anju et al also reported a case of angiomatoid SN dermatoscopically characterized by reddish homogeneous area with scales and dotted linear pigmentation [2]. Our case exhibited white lines reticular and coiled vessels that were not observed in the aforementioned studies [1]. Red structureless areas and coiled vessels observed in the present case reflect the proliferation of superficial dermal vessels and inflammation while white lines reticular correspond with fibrotic collagen bundles.

Although the dermatoscopic findings we described in this case can be observed in SN in general, we believe that the predominancy of coiled vessels may be an important clue to the angiomatoid variant of SN.

References

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