

Case report

Acquired hemangioma: An uncommon vascular cutaneous tumour in elderly persons

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Abstract Among recently characterized vascular tumors, tufted angioma or angioblastoma is a benign acquired slowly progressive cutaneous tumor, which most commonly arises in the neck and upper trunk in children and young adults. We describe such a case occurring in an elderly person. Clinically this tumour may closely mimic Kaposi's sarcoma and should be biopsied for histological confirmation of the diagnosis.

Key words

Acquired hemangioma

Introduction

Acquired cutaneous angiomatous proliferation is characterized by slowly spreading erythematous macules and plaques, sometimes surmounted by nodule formation. Synonyms are progressive capillary hemangioma and Nakagawa's angioblastoma.¹ Acquired hemangioma is a benign cutaneous angioma that must be distinguished from other vascular tumors, especially from Kaposi's sarcoma and if it appears in an older patient, angiosarcoma should be excluded. It is a slowly progressive cutaneous tumor, which normally occurs in the neck and upper trunk in children and young adults.^{1,2} Little is known about the etiology of hemangiomas, but these lesions are found to contain proliferating cell nuclear antigen, vascular endothelium derived growth factor (VEGF), vitronectin deposition in the subendothelial interstitial space, and higher levels of basic fibroblast

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growth factor (bFGF) and basement membrane molecules (collagenase type 4, laminin) and these factors in some ways have a role in growth of hemangiomas.^{3,4} Hemangiomas may arise de novo or after certain infections including herpes and HIV.⁵ There is an interdependent relationship of tumor growth and angiogenesis.⁶ It was found that tumors needed to induce the formation of new blood vessels to grow beyond a few millimeters.⁷ Light microscopic examination reveals lobules of closely packed capillaries scattered throughout the dermis. Vascular lumina are difficult to define and there are no atypical cells. Immunohistochemistry by using markers like VEGF, bFGF is another useful tool for making a diagnosis. Treatment in most of the cases is local surgical excision of the tumour, when indicated.

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Case history

A 55-year-old male patient presented with six months history of sudden appearance of mildly painful and occasionally

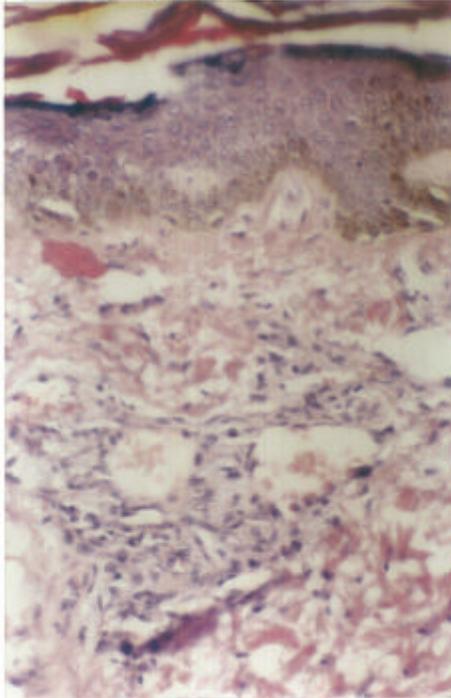


Figure 1 Multiple thin walled closely packed capillaries in the dermis with mild perivascular lymphocytic infiltrate

discharging three small skin lesions over right wrist region. The lesions started abruptly and gradually increased in size. At the time of presentation, there were three isolated but closely placed, grayish blue soft nodular lesions, measuring in size (5mm to 1cm) individually in diameter on the extensor aspect of right wrist area. Surface was intact. Epitrochlear and axillary lymph nodes were not palpable on the right side. There was no history of any similar lesions elsewhere over the body. He neither visited abroad, nor did he receive any transfusion in the past. There was no history of any preceding illness. His general health was good and systemic examination proved unremarkable. Skin biopsy of the lesion was done and histopathology revealed

multiple thin walled closely packed capillaries in the dermis with mild perivascular lymphocytic infiltrate (**Figure 1**). There was no evidence of Kaposi sarcoma. The patient was reassured about the benign nature of the tumour and was advised to consult the surgeon for excision of the tumour.

Discussion

Hemangiomas are quite prevalent in infancy and childhood and are infrequently seen in young adults and elderly people. In normal adult tissues, the angiogenic process is quiescent by virtue of a well balanced harmony between pro- and anti-angiogenic factors. In normal adults, only 0.01% of vascular endothelial cells divide.⁷ During reproduction, development, and wound repair, angiogenesis is highly regulated; it “switches on” for short periods and then is completely inhibited. When this tightly regulated, biochemical balance of pro- and anti-angiogenic factors is upset, angiogenesis “switches on” to supply pathologic tissues and disease starts. Several triggers are known to flip this pathologic switch, including metabolic factors, mechanical stress, immune or inflammatory responses, and genetic mutation.^{7,8} Hemangioma in our case, most likely arose de novo as there was no history of any preceding viral infection or any underlying immunosuppression. Familiarity with such acquired tufted angioma should prevent this lesion from being misdiagnosed as malignant vascular tumor arising in middle aged or elderly persons, especially Kaposi's sarcoma.

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