Case Report: Two Cases of Verrucous Haemangioma and Review of Literature.

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ABSTRACT

Verrucous haemangioma is an uncommon benign capillary or cavernous haemangioma associated with epidermal changes. These tumours are mostly congenital and occur in children. Occurrence in adults although rare is reported. Verrucous hemangioma is mostly acral and does not resolve spontaneously. Histopathological evaluation is important in its diagnosis. Treatment modalities include excision, cryotherapy and the use of Sirolimus. Two cases of verrucous hemangioma (one adult and one child) are presented.

Keywords: verrucous haemangioma, haemangioma, histopathology

Rapport de Cas: Deux Cas D'hémangiome Verruque et Revue de la Littérature.

ABSTRAIT

L'hémangiome verruqueux est un bénin capillaire ou caverneux hémangiome rare associé à des modifications épidermiques. Ces tumeurs sont le plus congénitales et surviennent chez les enfants. Une occurrence chez l'adulte, bien que rare, est rapportée. L'hémangiome verruqueux est principalement acral et ne se résout pas spontanément. L'évaluation histopathologique est importante dans son diagnostic. Les modalités de traitement comprennent l'excision, la cryothérapie et l'utilisation de Sirolimus. Deux cas d'hémangiome verruqueux (un adulte et un enfant) sont présentés.

Mots clés : hémangiome verruqueux, hémangiome, histopathologie

Introduction

Verrucous haemangioma (VH) is an uncommon benign capillary or cavernous haemangioma associated with epidermal changes.[1,2] Prevalence studies are rare as most articles on this type of haemangioma in literature are case reports or case series.[3-5] The associated epidermal changes include hyperkeratosis, acanthosis and papillomatosis.[1,2] Dermal and sometimes subcutaneous vessels are affected[5-7] Verrucous haemangioma is mostly located on the lower extremities and is unilateral in the majority of affected individuals.[1,4,7] Location of the lesions on the trunk and upper limb have been reported.[6,8] Occasionally, VH has a linear arrangement on the limbs or follows Blaschko's lines.[2,3,8,9] Verrucous haemangioma occurs mainly in children but occurrence in adults is reported.[3,4,7] Clinically, VH appears as hyperkeratotic papules or nodules of various colours (blue, purple, red, black) and that bleeds occassionally.[4,6,7] Diagnosis of VH is confirmed with histopathological evaluation of deep biopsies.[2,5,6,10] Early treatment to avoid disfigurement is advocated.[7,11] Two cases of VH; one in a child and one in an adult are presented.

Case Report

Case 1

A 13-year old boy presented to the clinic with a dark coloured growth on the shin of his right leg noticed since childhood. The growth remained asymptomatic until a year ago when it increased in size with associated contact bleeding necessitating the consult. Clinical examination revealed a well-marginated, weepy, hyperkeratotic nodule with a warty surface and purulent material on the shin of the right leg (figure1). There was no limb length nor limb size discrepancy. Systemic examination revealed no abnormality. Screening laboratory investigations were normal. A diagnosis of impetiginized epidermal naevus to rule out a haemangioma was made. Oral antibiotics (Erythromycin 500mg TDS for one week) was prescribed and an excision biopsy for histopathology was done.

Histopathology revealed massive hyperkeratosis, papillomatosis, acanthosis and thick-walled ectatic vessels filled with red blood cells in the dermis (figures 2A & B). A diagnosis of verrucous haemangioma was made.

Case 2.

A 29-year old man was seen in the clinic with a three-week history of a growth on his right forearm. A history of contact bleeding and increase in size was also given. Clinical examination revealed an erythematous nodule with a sessile base on his right forearm. A diagnosis of pyogenic granuloma to rule out eccrine poroma was made and an excision biopsy for histopathology was done. Screening laboratory investigations were normal.

Histopathology revealed massive hyperkeratosis, papillomatosis, scale crust, acanthosis and thick-walled ectatic vessels filled with red blood cells in the dermis (figures 3A & B). A diagnosis of verrucous haemangioma was made.

Discussion

Verrucous haemangioma (VH) is an uncommon benign capillary or cavernous haemangioma associated with epidermal changes.[1,2] Due to the associated epidermal changes, VH is frequently misdiagnosed as occurred in our two patients.[11,12] Verrucous haemangioma although mostly a childhood tumour can occur in adults as was the case in one of our two patients.[3,4,7] Anatomical location is widely reported to be acral especially on the legs.[1,4,6,] The two cases reported had acral lesions with one located on the forearm like that reported by other researchers.[6,8] The diagnosis of VH is hinged on histopathological evaluation.

Apart from confirming the diagnosis, histopathology allows differentiation from other vascular tumours and other growths with similar epidermal changes. [6,7,11,12] Histopathology of VH is typified by hyperkeratosis, acanthosis, dilated blood-filled vessels with thick vascular walls in the dermis which sometimes involves the subcutis. [6,7,12] Positive endothelial sensitivity to glucose transporter 1 (GLUT1) and cluster of differentiation 31 (CD31) confirms the vascular nature of VH.[6,7]

Verrucous haemangioma is differentiated from angiokeratoma by the location of the vessels.[11,12] In angiokeratoma, vascular involvement is limited to the papillary dermis unlike VH which extends beyond the papillary dermis.[11,12] Differential diagnoses includes; angiokeratoma, angioma, lymphangioma circumscriptum, papillomas, tumours (including melanoma), and verrucae.[10] Treatment is usually required as spontaneous involution does not occur with VH.[7,11] Wide surgical excision is the commonest form of treatment.[7] Recurrence is said to be low if margins are well resected.[7,12] Other treatment modalities include laser therapy, radiotherapy, electrocautery, cryotherapy, topical corticosteroids and sirolimus (0.8mg/m^2 in children) with variable success.[7,10,12] Both of the patients presented had surgical intervention.

In conclusion, these cases have been presented to highlight the importance of histopathological evaluation in the diagnosis of dermatological diseases and to draw attention to this uncommon vascular lesion.

The author declares no conflict of interest

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Figure 1. Clinical photograph of growth on right leg

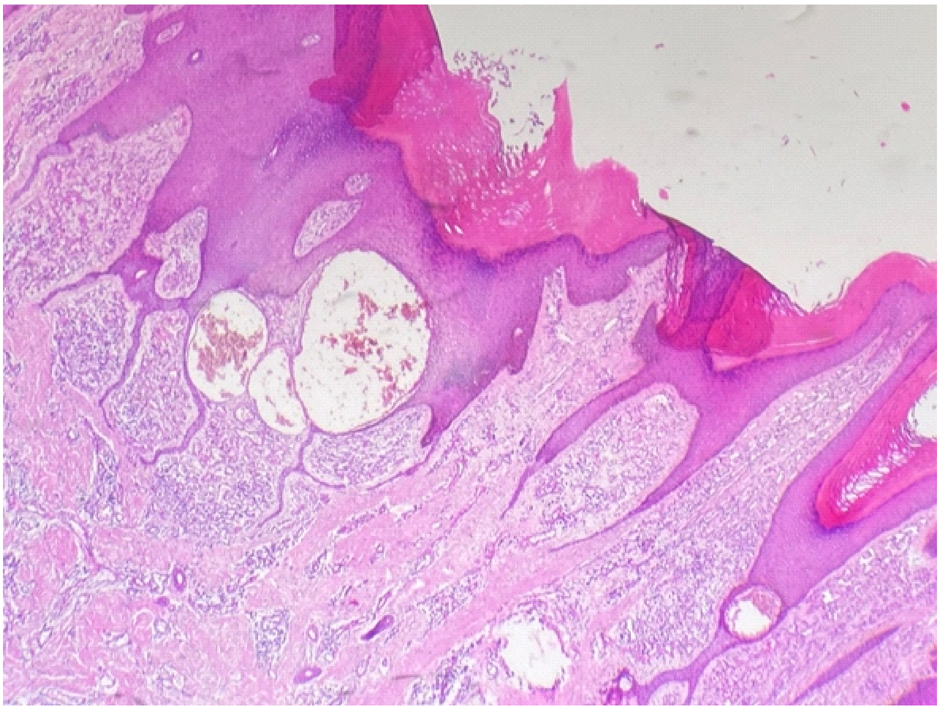

Figure 2A. Verrucous haemangioma: Hyperkeratosis, Papilomatosis, Acanthosis. H&E x10

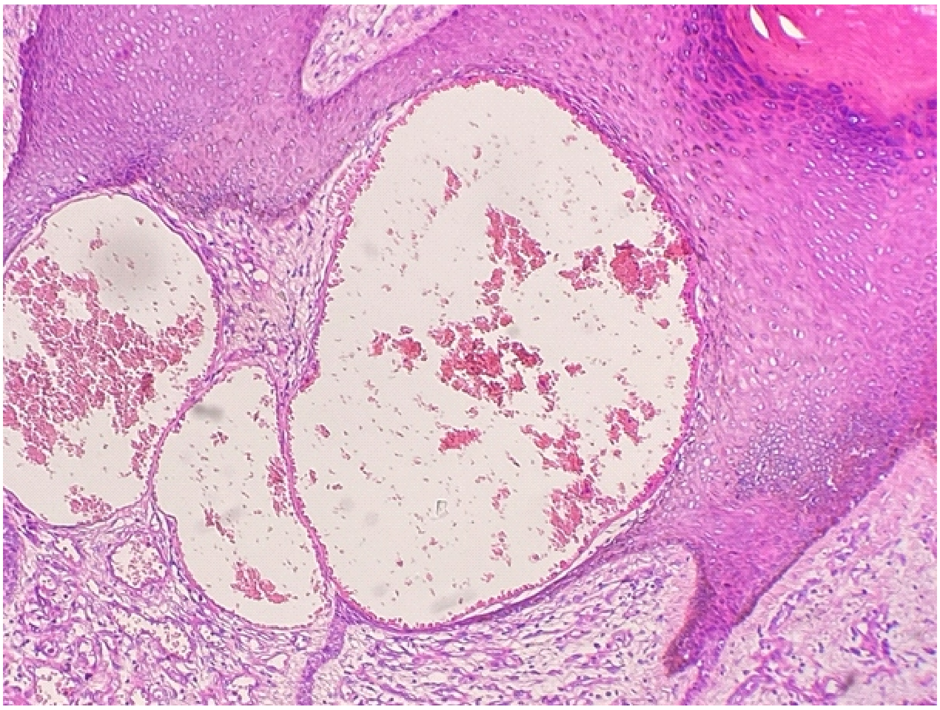

Figure 2B. Verrucous haemangioma: Ectactic vessels filled with RBCs H&E x20

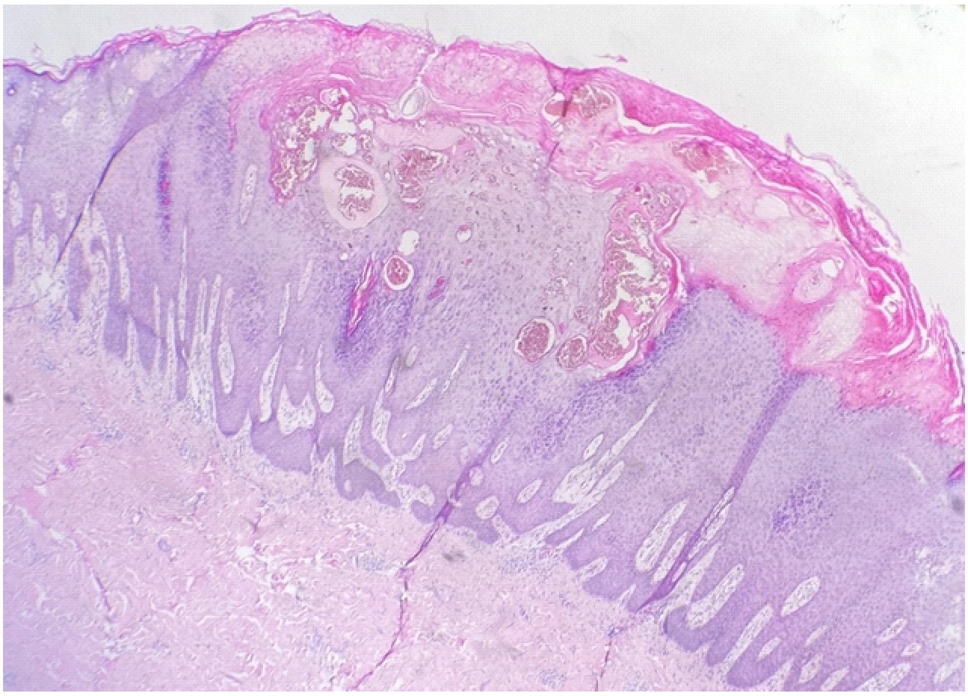

Figure 3A. Verrucous haemangioma: Acanthosis, Ectactic vessels filled with RBCs. H&E x10

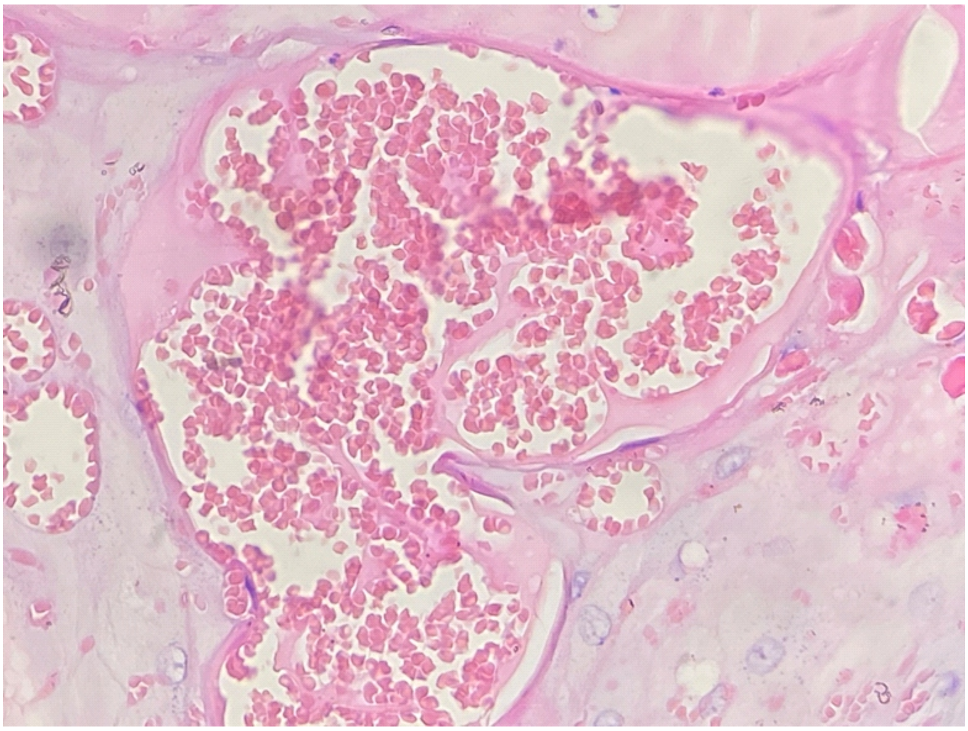

Figure 3B. Verrucous haemangioma: Thick walled, Ectactic vessels filled with RBCs. H&E x20