VERRUCOUS HAEMANGIOMA
(A case report)

RADHA RANI AGGARWAL,* F. HANDA,† SUDARSHAN GUPTA ‡
AND MASOOD AHMAD ||

Summary

Two cases of verrucous haemangioma (VH), a very rare disease, are reported for the first time from this region of the world. Early diagnosis and differentiation from angiokeratoma circumscriptum (AC) is important as complete cure occurs with early and deep excision.

Verrcous haemangioma (VH) represents angiomatous naevus with secondary hyperkeratotic epidermal changes. It is mostly present at birth or appears in early childhood as solitary bluish red nodule with verrucous surface on lower limbs. It spreads slowly forming satellite nodules. It is a very rare disease and approximately nineteen well documented cases of verrucous haemangioma are reported in world literature upto 1967[4,5]. Exact incidence is difficult to determine since verrucous haemangioma has been described under a diversity of names such as angiokeratoma circumscriptum naeviforme, unilateral verrucous haemangioma, Keratoangioma, naevus vascularis unius lateris etc. Early diagnosis and excision are important since the lesion enlarges and spreads with body growth and does not regress spontaneously. Early excision thus obviates skin grafting and large unsightly scars. Clinically this condition may be misdiagnosed as angiokeratoma circumscriptum (AC), pigmented tumour, naevus, melanoma, warts etc.

Verrucous haemangioma is a structural variant of capillary or cavernous haemangioma in which reactive epidermal acanthosis, papillomatosis and hyperkeratosis develop secondarily. Therefore verrucous haemangioma is a better term than keratotic angioma which stresses only hyperkeratosis. Loria in 1958[1] reported that secondary verrucous change is a protective response to repeated trauma and asphyxia. Tourine in 1938[2] viewed evolution of verrucous haemangioma as aggregates of histiocytic cells which initially form capillaries of embryonic type and later progress to adult type capillaries. Cellular elements in capillaries disappear and lead to formation of cavernous spaces. Wertheim in 1924[3] expressed a similar opinion namely that verrucous haemangioma represents an actual increase in vascular elements. Imperial in 1967[4] discussed the differentiating features between verrucous haemangioma and angiokeratoma circumscriptum. They consider that the

* Assistant Professor
† Professor and Head of Department, Department of Skin and V. D.
‡ Associate Professor, Deparment of Pathology
|| P. G. Student, Department of Skin and V. D.
Government Medical College,
Patiala (Punjab) India.

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Fig 1 Shows hyperkeratosis, parakeratosis, new blood vessel formation ia the dermis.

former represents angioma with verrucous changes whereas the latter represents telangiectasia of dermal papillary vessels due to trauma. Lever[7] considers angiokeratoma circumscriptum and verrucous haemangioma as one disease and does not mention verrucous haemangioma as a separate entity. Dammart[6] regards verrucous or hyperkeratotic features as a reaction to injury and not an epithelial naevus with associated haemangioma.

Though verrucous haemangioma and angiokeratoma circumscriptum clinically resemble each other, their histological pictures are distinct. Their clinical courses are diverse as complete cure occurs in angiokeratoma circumscriptum after surgical excision whereas recurrence rate is very high in verrucous haemangioma. Hence it is important to make the correct diagnosis.

Case History

Case No. 1

A twelve year old girl presented with erythematous brownish papules and nodules on medial side of left foot, lower leg and popliteal fossa. Her parents noticed a reddish blue papule on medial side of left foot when she was few months old. Gradually satellite papules appeared around this. Four or five months later fresh papules appeared on medial side of lower leg. Two years prior to her hospital attendance, patient noticed still more lesions appearing in the popliteal fossa. Lesions progressively increased in size and some of them had become nodules. Meanwhile the colour of lesions also slowly changed to reddish brown and the surface of lesions became warty. There was no history of itching, oozing or pain. Patient had applied various topical medicaments without any benefit. Episodes of bleeding used to occur from the nodules on the foot after trauma.

There was no family history of similar type of disease.

General physical examination revealed no abnormality. There was no evidence of systemic haemangiomas.

Skin showed a bluish pink, irregular, firm, nontender nodule of 7.5 × 3 cm size with a pinpoint black crust as the medial side of the left foot. Surface was dry, rough and verrucous. Satellite nodules were also seen some of which were fixed to underlying structures. Similar nodules and papules were present on the left lower leg and in popliteal fossa in a linear fashion. In the popliteal fossa few papules were dark red to blue in colour and surface was smooth in some papules. The

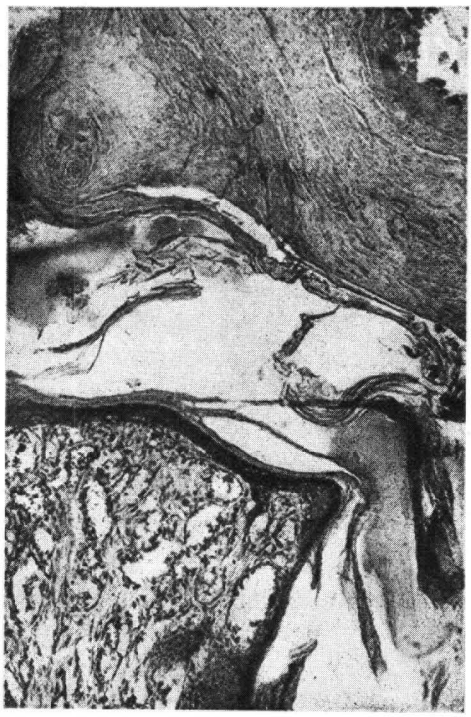

Fig. 2 Shows hyperkeratosis, parakeratosis, new blood vessel formation in the dermis.

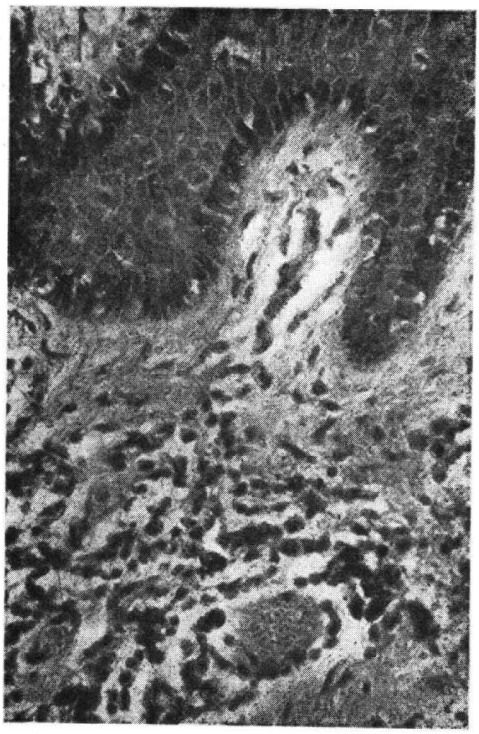

Fig. 3 Deeper down in dermis new blood vessel formation is there (After Surgical excision).

clinical diagnosis of verrucous haemangioma was confirmed histopathologically. Routine investigations revealed no abnormality except anaemia.

Histopathology showed hyperkeratosis, acanthosis, papillomatosis, and elongation of reteridges (Figure 1). There was a patch of parakeratosis (Figure 2). In one area acanthotic epidermis was seen to enclose a large vascular space (Figure 4). Dermis showed vascular structures. Endothelial lined spaces are also discernible in the subcutaneous tissue.

Case No. 2

A seven-year old girl attended Surgery Department of Rajendra Hospital, Patiala, with multiple asymptomatic swellings on the dorsum of right foot since birth. At birth parents noticed a bluish papule on right foot which slowly increased in size; satellite lesions appeared thereafter. The surface of the lesion became warty after sometime. There was no history of bleeding from the lesions.

No other family members was similarly affected.

General physical examination did not reveal any abnormality.

Skin showed multiple bluish brown papules and nodules of variable sizes on the dorsum of right foot the surfaces of which were rough and verrucous. They are firm and non-tender. Nodules were attached to the overlying skin but not fixed to deeper structures.

Routine investigations revealed no abnormality.

Histopathology showed hyperkeratosis parakeratosis and papillomatosis. The underlying dermis revealed intercommunicating small and large vascular spaces indicating mixed capillary and cavernous haemangioma. There was scanty fibroconnective tissue separating the vascular structures. Endothelial lined spaces were present in large numbers in the deeper dermis and subcutaneous tissue.

Remarks

Awareness about the diagnosis of verrucous haemangioma is important in congenital verrucous nodular swellings since it may be misdiagnosed as melanoma, papilloma etc., and may lead to unnecessary tension.

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