A Case Report of a Patient with Linear Verrucous Hemangioma

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ABSTRACT

Verrucous hemangioma is a structural variant of capillary or cavernous hemangioma in which reactive epidermal acanthosis, papillomatosis, and hyperkeratosis are secondary developments. It usually presents at birth, but may appear later in adult life. Often misdiagnosed clinically as angiokeratoma, its distinct histopathology helps to differentiate the two. It has the tendency for recurrence if not treated by wide excision. We report a case of 22-year-old male who had linear verrucous hemangioma on his left leg since childhood. The purpose of reporting it is the rarity of the case and the possibility of recurrence, if not treated by wide excision and skin grafting.

Key words: Angiokeratoma, hemangioma, linear, verrucous

INTRODUCTION

Verrucous hemangioma is an uncommon, localized vascular malformation which on histological examination is associated with reactive epidermal acanthosis, papillomatosis, and hyperkeratosis. They tend to start as well-defined, dark red macular areas resembling port-wine stains, which sometimes develop into soft bluish-red vascular swelling. After a variable number of years, the lesions take on their characteristic bluish-black hue and develop a verrucous surface as well. Recurrent bleeding and infection often cause the sufferer to seek medical advice at this stage for the first time.

CASE REPORT

A 22-year-old male presented with multiple, bluish-red, verrucous lesions over the extensor aspect of his left leg, which he had since he was 16 years. These lesions started as bluish-red nonelevated lesions and then progressively enlarged, increased in number and became more verrucous over the next 3-4 years. There were recurrent bleeding and infection in these lesions.

Dermatological examination revealed several hyperpigmented, hyperkeratotic, bluish-black, confluent nodules, ranging in size from 0.5 to 3 cm with a verrucous surface overlaid with ulceration, crusting, oozing, and in a linear arrangement over the extensor aspect of the left leg. [Figures 1 and 2] The base of these lesions was violaceous with surrounding erythema. A few dark red macular lesions were present around the main lesion (three near the upper aspect and two near the lower aspect of the main lesion). There were no palpable lymph nodes in the affected site or the inguinal region.

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Histopathologic examination of the preoperative biopsy showed irregular papillomatosis, acanthosis and hyperkeratosis of the epidermis. The superficial dermis revealed multiple, thin-walled, dilated blood-filled spaces, which indicated that they were angiokeratoma [Figures 3 and 4]. The patient was treated by wide excision and skin grafting in the surgical department. The histopathological examination of the postoperative excised specimen indicated that it was rather verrucous hemangioma (with dilated blood vessels also extending into deeper dermis and sub-cutaneous tissue).

**DISCUSSION**

Verrucous hemangioma is a rare, congenital, vascular malformation of the cutaneous and sub-cutaneous tissues with a predilection for the lower extremities. Linear verrucous hemangioma is an even rarer presentation, with 10 cases reported till date. Although almost invariably present at birth, it may appear later on, even in adult life.[5] The lesions appear as bluish-red, well-demarcated, soft and compressible swellings on the legs in a great majority of cases. Later, they become verruciform and tend to enlarge and spread peripherally, small satellite nodules may arise. These lesions do not resolve spontaneously and have the tendency to recur after excision if margins are inadequate.[5]

The diagnosis of verrucous hemangioma is mainly made by histopathological examination, although clinical correlation is required to make a correct diagnosis.[6] Histopathological examination shows irregular papillomatosis, acanthosis and hyperkeratosis of the epidermis. The superficial...
dermis shows multiple thin-walled dilated blood filled spaces. Similar spaces are present in the lower epidermis and sub-cutaneous tissue. It has to be differentiated from angiokeratoma in which only superficial blood vessels are dilated. Verrucous hemangioma differs from other infantile hemangiomas in that it shows no tendency to spontaneous involution, increases in size and becomes more keratotic as the patient gets older.

CONCLUSION

Verrucous hemangiomas do not resolve spontaneously and have a tendency to relapse. They require a large, deep. Incomplete excision leads to recurrence because of deeper components.

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Conflicts of interest

There are no conflicts of interest.

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