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Case Report

A Rare Case of Cutaneuos Angioleiomyoma: A Case Report

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Abstract

Cutaneous Angioleiomyoma is a very rare benign tumour of which incidence is unknown.

We report a case of a 42-year-old male patient who presented with a symptomless solitary nodule over the left nostril for one and a half years duration.

Complete surgical excision of the tumour was done and the sample was sent for histopathological examination.

Diagnosis of this tumour was done on the evidence of histopathological examination with haematoxylin and eosin mounts.

Sometimes achieving the best aesthetically accepted results may be challenging due to the site of involvement.

Introduction

Cutaneous angioleiomyomas are benign soft tissue tumors that can arise at any age and present commonly between the third and fifth decades of life [1] but a congenital presentation is extremely rare [2]. Cutaneous angioleiomyoma is usually a solitary, well-circumscribed subcutaneous nodule measuring up to 4 cm in diameter and is mostly found on the lower extremities of women [1]. It may be painful and tender. The nostril, the affected site in our case, is unusual for angioleiomyoma [3]. Furthermore, because of the failure to elicit tenderness in the tumour, which resembled Kerato Acanthoma, we could make the diagnosis of angioleiomyoma only by observing its histologic features. Angioleiomyoma is usually found as a tender mass on the lower leg of a middle-aged woman [1].

Case report

We report a 42-year-old male patient with no comorbidities presented with a well-demarcated circumscribed lesion with a central umbilication over the left nostril for one and a half years duration. He gave a history of mild trauma to the site of the lesion some years ago and repeated scratching of the lesion while he was trying to remove it thinking that this is a simple acne. He did not have any other abnormalities during the systemic examination and a shaving biopsy was done and sent for histopathology examination.

Figure 1 shows the circumscribed well-demarcated lesion over the left nostril.

The skin biopsy (Figure 2a,b of H & E staining) reveals the intact epidermis with an underlying relatively circumscribed lesion composed of closely compacted bundles of smooth muscle cells with intervening thin-walled, slit-like vascular channels. The appearances are those of solid-type cutaneous Angio leiomyoma.

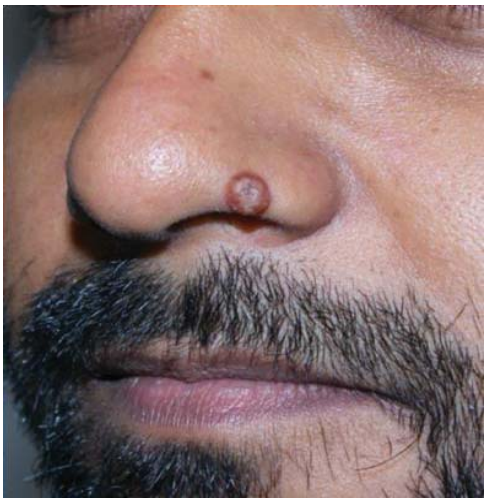

Figure 1: Circumscribed lesion over the left nostril.

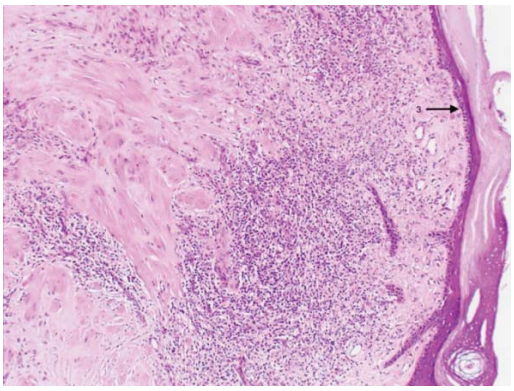

Figure 2a: Skin biopsy - H&E staining.

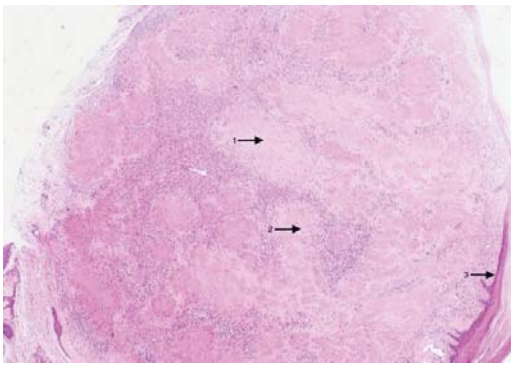

Figure 2b: Skin biopsy – H&E staining.

Discussion

First fully described in 1937 by Stout [4], angioleiomyomata are benign, solitary, soft-tissue tumors arising from the tunica media of vessels. Otherwise known as vascular leiomyoma, dermal angioma, or angiomyoma, they contain vascular and smooth muscle components. The majority of these tumors involve the extremities, with fewer than 10% of lesions involving the head and neck. Fewer than a dozen cases involving the external ear specifically have been described. Angioleiomyomata are typically slow-growing tumors that appear in the third to fifth decade of life but have been described in children as well [5].

Cutaneous and hypodermal angioleiomyomas (vascular leiomyomas) are well-circumscribed nodules composed of mature smooth muscle bundles interspersed with abundant vascular channels with patent lumens. The angioleiomyoma can be classified into three histopathologic subtypes [6,7]) or variants based on their vascular structure: (i) solid or capillary with very narrow (slit-like) lumens; (ii) cavernous usually with dilated blood filled-spaces showing scant muscular thickening of the walls; and (iii) venous with thick muscular vessel walls [3]. The solid variant is the most frequent. The angioleiomyoma is usually solitary, small (commonly <2 cm), encapsulated, and painful (60% of cases) [1]. It occurs in a wide age range. The tumor has a predilection for the half distal of the extremities, especially the lower extremity. Location in the nostril is very rare as in our case.

The solid type is by far the most common and typically occurs in the lower extremities as a small, painful, cutaneous mass. The solid type of angioleiomyoma is composed of bundles of smooth muscle with rare scattered capillaries and has a female predominance. The venous and cavernous types have a male predominance, are more typically found in the head and neck, and tend to be painless. These two types are distinguished on the basis of their vascular channel walls. The cavernous type has thin muscular walls, which are difficult to distinguish from intervascular smooth muscle bundles, while the venous type has thicker-walled vessels and loose intervascular bundles of smooth muscle cells that are easily distinguished from the vascular walls [5].

It has been suggested that angioleiomyoma may be a form of hamartoma, a vascular malformation, or an intermediate lesion occurring during the progression of a hemangioma to a leiomyoma [5]. Minor trauma, venous stasis, and hormonal changes especially that of oestrogen have been proposed as aetiological features. The presence of chronic inflammatory cell infiltrates in some lesions supports the venous stasis theory [1].

The diagnosis is usually made with a biopsy [5]. Complete surgical excision is the mainstay of treatment and is curative, with rare recurrence [1].

Conclusion

Cutaneous angioleiomyomas are very rare benign tumours that can arise at any age but common in middle-aged females. The differential diagnosis includes hemangioma and venous malformation, which may be excluded according to the absence of significant smooth muscle. Glomus tumor, angiomyolipoma, and angioleiomyosarcoma may be excluded according to the absence of ovoid smooth muscle cells, adipocytes, and cellular atypia, respectively [5]. The Skin biopsy is a must for diagnosis and biopsy itself will be a treatment as well. It is a very rare tumour on the face especially over the nostrils.

As in our case, complete surgical excision while preserving the aesthetic appearance is the treatment of choice.

Statement of ethics

Ethical approval is not required for this study in accordance with local or national guidelines.

Written informed consent was obtained from the patient for publication of the details of his medical case and any accompanying images.

Acknowledgement

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