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Case Report

Two Cases of Angioleiomyoma of the Auricle

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Angioleiomyoma is a benign tumor originating from the muscularis layer of blood vessel walls. It usually occurs in extremities, and the auricle is not a frequent site for the development of this tumor. We present two cases of auricular angioleiomyoma diagnosed after pathological examination along with a review of literature.

KEYWORDS: Angioleiomyoma, smooth muscle tumor, auricle

INTRODUCTION

Angioleiomyoma is a benign tumor originating from the muscularis layer of blood vessel walls [1]. Most commonly, this tumor appears as a painful solitary lesion on a lower extremity. However, it is painless when it occurs in the head and neck region [1-4]. As this tumor does not have any specific clinical symptoms or diagnostic characteristics, it is not easy to suspect this tumor unless it is found in the predilection sites [5]. Several reports of angioleiomyoma in the auricle have been published in literature [1-6]. The authors present two cases of auricular angioleiomyoma along with a review of literature.

CASE PRESENTATION

Case 1

A 50-year-old male presented with a painless mass on the posterior auricle for 7 years. On physical examination, a 3×3 cm-sized soft and round mass was palpated on the left posterior auricle (Figure 1a). In the temporal bone CT scan, a 2.5×2.5×1.7 cm-sized hypo-dense mass was noted in the fat layer of the posterior auricle. The patient underwent skin-sparing surgical excision of the mass. After a curvilinear incision along the postauricular sulcus was made, the skin was elevated from the mass in the subcutaneous tissue (Figure 1b). The mass was completely removed, and then, the elevated skin was re-approximated with a trimming of the extra skin. No sign of recurrence was observed during the postoperative follow-up for 6 months. Pathological examination revealed a well-demarcated nodule composed of smooth muscle tissues punctuated with thick vessel walls and patent lumens (Figure 1c).

Case 2

A 54-year-old male presented to our clinic with a 1.5 cm-sized cystic mass on the superior portion of the auricle for 3 years. On physical examination, a 1.5×1.5 cm-sized dark-colored round mass was noted on the root of the helix in the right auricle (Figure 2a). The mass was easily removed from the surrounding cartilages. Microscopically, dilated vascular spaces with surrounding muscle bundles were observed (Figure 2b).

DISCUSSION

According to the large study by Hachisuga et al. [7], the locations of angioleiomyomas in 562 patients were reported to be lower extremity (67%), upper extremity (22%), head and neck (8.5%), and trunk (2.5%). There are several reports of auricular angioleiomyoma in literature [1-6]. The common clinical presentation of this tumor is a skin-colored, round, and firm solitary nodule that is smaller than 1.5 cm in most cases. One of our cases presented with a tumor larger than 2.5 cm in diameter.

Microscopically, the tumor has a characteristic appearance composed of smooth muscle bundles with vascular channels surrounded by a thin capsule [1]. Typically, the inner layers of the smooth muscles of vessels are arranged in an orderly circumferential fashion, and the outer layers spin or swirl away from the vessel and merge with the less well-ordered peripheral muscle fibers [4]. It is difficult to classify the vessels in these tumors as veins or arteries. The origin of angioleiomyomas is still controversial. Some researchers believe that they arise from veins [2, 7]; others believe that they are actually hamartomas based on the presence of mature lipocytes [7].

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Figure 1. a-c. Preoperative photograph (a) shows a 3×3 cm-sized round mass on the posterior surface of the left auricle. Intraoperative image (b) after skin elevation shows a 2.0×1.5 cm mass encapsulated by fibrous tissues. Histopathological examination (c) showed a well-demarcated nodule composed of smooth muscle tissues punctuated with thick vessel walls and patent lumens (H&E, ×40)

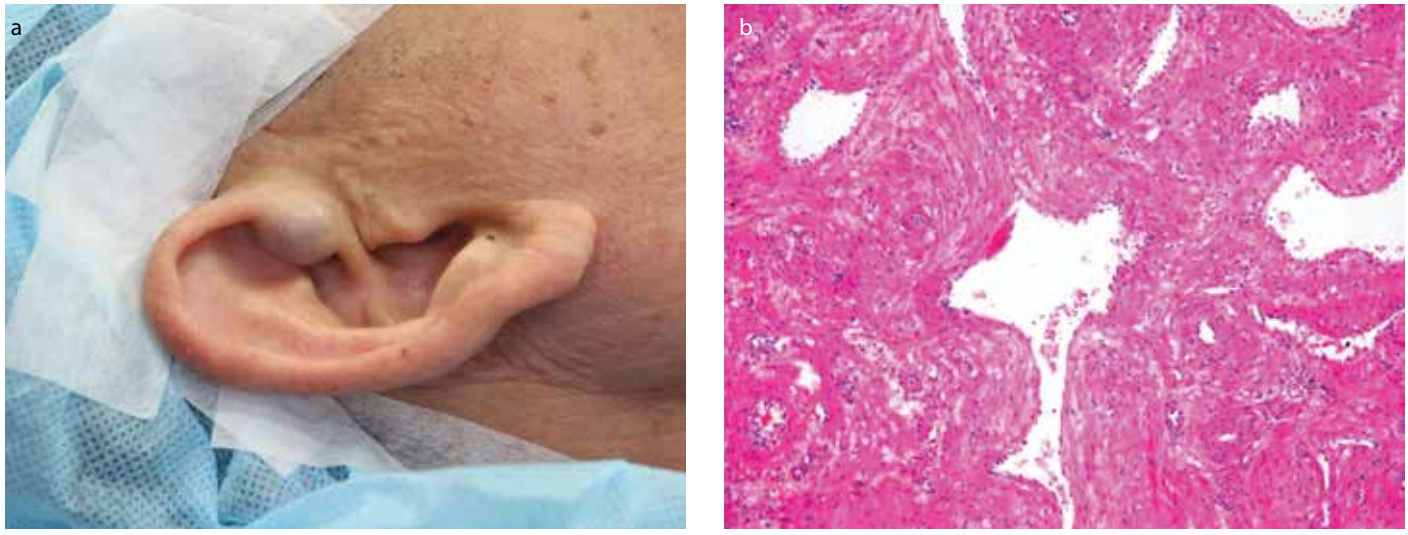

Figure 2. a, b. Preoperative photograph (a) shows a 1×1.3 cm-sized round mass on the root helix of the right auricle. Histopathological examination (b) showed dilated vascular spaces with surrounding muscular bundles (H&E, ×100)

Differential diagnoses include other cutaneous tumors with smooth muscle fibers and blood vessels, including hemangiomas, leiomyomas, angiomyolipomas, glomus tumors, and leiomyosarcomas. The treatment of choice is a complete surgical excision, and recurrence is reported to be rare [5]. However, malignant changes in association with recurrence have been reported [8]. In conclusion, the clinician should include this tumor in the differential diagnosis of a benign-looking mass lesion in the auricle and should consider complete removal when suspicious [2].

Ethics Committee Approval: Ethics committee approval was received for this study (PC13ZISE0089).

Informed Consent: Written informed consents were obtained from the patients who participated in these cases.

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