

## Huge Capillary Hemangioma of the Pinna

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**ABSTRACT:** Capillary hemangioma is a benign vascular tumor. It usually presents as a bright red to blue, rapidly growing nodule and may occur anywhere on the skin or mucosa. Involvement of the pinna is very rare. In this report, we describe one such unusual case. A 28-year-old female patient presented to our institution with huge hemangioma of the left pinna. Temporary ligation of the external carotid artery was done followed by complete auricular amputation.

**Key Words:** Capillary hemangioma, pinna, auricular amputation.

**INTRODUCTION :** Capillary hemangiomas are benign vascular tumors composed of capillary-sized blood vessels. They develop at a number of sites but involvement of pinna has been rarely reported. Giblin et al retrospectively reviewed 408 cases of capillary hemangioma treated at a single institution. In this series the head and neck presented the most common location (36%), followed by the upper limb (33%), the trunk (15%), and the lower limb (8%). 59 percent of the head and neck lesions were located on the lips, the cheeks, and in other intraoral locations. Only 4 patients presented with a capillary hemangioma of the ear, although the authors did not give any detailed information as to which part of the ear was affected<sup>1</sup>. Courteny et al reported a case of capillary hemangioma in a 27-year-old female patient. It was found arising from external auditory meatus<sup>2</sup>. Schild et al reported a case of pedunculated capillary hemangioma of the external ear. It was an exophytic mass about 27 x 20 x 20 mm in size attached to the left pinna by a broad-to-slender stalk. They performed complete excision of the tumor<sup>3</sup>.

**CASE REPORT :** A 28-year-old female patient presented to our institution with swelling of the left pinna for 2 years. Patient noted a cutaneous blush on her left pinna, 2 years ago, with slight size discrepancy between the ears. Patient recalled gradual expansion of the lesion. Trauma, on the pinna, 1 year back, was a trigger factor, and caused, the affected ear to grow noticeably larger. Physical examination revealed huge macrotia, capillary staining and cutaneous thickening of whole of the left pinna. The external auditory canal was partially occluded, but tympanic membrane was without any pathological finding. The remainder of the physical examination was uneventful. Doppler ultrasonography of the lesion showed a vascular tumor limited to the pinna without extension in the surrounding area. A provisional diagnosis of hemangioma was made. The patient was given a general anesthesia and complete auricular amputation was done after temporary ligation of the external carotid artery, on the left side (Fig 1). Initially lobule was not included in excision. But bleeding could be stopped only after complete amputation. Primary closure was accomplished by linear approximation. Histopathological examination revealed a well-vascularized tumor with capillary sized vascular channels. There were no signs of malignancy and the surgical margins were free of disease. The findings were consistent with a capillary hemangioma. The postoperative course was uneventful. Repeat doppler ultrasonography of the periauricular region done 1 year later, revealed no recurrence. The patient wore her hair in a long style to cover the site.

**DISCUSSION :** Hemangiomas are characterized by

increased number of normal or abnormal vessels filled with blood. They are difficult to distinguish with certainty from malformations or hamartomas. These lesions are subdivided into several categories, capillary hemangioma is the most common type<sup>4</sup>. Virtually all capillary hemangiomas are composed of nodules of capillary size vessels, each of which is subserved by a feeder vessel. This lobular or grouped arrangement of vessels is a helpful feature for distinguishing benign and malignant vascular malformation. Adult form of capillary hemangioma consists of small vessels lined by flattened mature endothelium<sup>5</sup>. Concerning the sex ratio, the international literature offers conflicting views, although mucosal lesions are upto twice as common in women as in men<sup>3</sup>.

The etiology of capillary hemangioma is unknown. Proposed agents include trauma, infection, hormonal factors, and preceding dermatoses<sup>5</sup>. The capillary hemangiomas in women may fluctuate in size with pregnancy and menarche; this suggests that the endothelial cells of these tumors may be responsive to circulating hormones<sup>5</sup>. Our case was a 28-year-old female, trauma was another factor which was associated with increase in the size of tumor.

Capillary hemangioma usually presents as a bright red to blue, rapidly growing nodule on a level with the surface of the skin or mucosa<sup>3</sup>. Very rarely, as in the case presented, huge hemangioma is formed on the pinna. A lesion with thrill or bruit or with an obviously warmer



Figure 1: Huge Capillary hemangioma of the left auricle. Left external carotid artery (arrow) exposed for temporary ligation.

surface is most likely a special vascular malformation, called arterio-venous hemangioma (arterio-venous malformation)<sup>6</sup>. It is important to distinguish between hemangiomas and other vascular malformations as they are treated differently and have different outcomes. Hemangiomas have a variable ultrasound appearance depending on the number of cystic vascular spaces present. Small lesions are usually echogenic but often the larger lesions are hypoechoic, compressible with increased color Doppler flow. Grey-scale imaging can aid the diagnosis of a venous malformation. The majority of venous malformations are heterogeneous and hypoechoic relative to the subcutaneous tissue and phleboliths are seen in 16 percent<sup>7</sup>. Angiography, retrograde venography, MRI, and magnetic resonance angiography allow more definite identification of the nature of a vascular mass of the pinna. However definite diagnosis can only be obtained by excision of the tumor with histologic examination<sup>6</sup>. Shave and cautery, curettage and laser ablation or photocoagulation appear less efficient in clearing these notoriously recurring lesions. Complete surgical resection with histopathologically clear margins represents the therapy of choice<sup>1</sup>. Chances of recurrence are higher if there is incomplete histological excision. After auricular amputation, reconstruction can be done by costochondral cartilage and a contralateral free temporoparietal fascial flap. Prosthetic ears and women wearing their hair in a long style, as was ours, are options available for patients denying reconstructive surgery<sup>6</sup>.

The case presented is noteworthy for the unusual size of the capillary hemangioma of the pinna. This work received the approval of the departmental board of postgraduate studies.

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