A Case of Cutaneous Angiomyolipoma

Yong Suk Lee, M.D., Sang Eun Moon M.D., Phil Soo Ahn, M.D.,
Kwang Hyun Cho, M.D., Kye Yong Song*, M.D.

Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea

**Department of Pathology, Chung Ang University College of Medicine, Seoul, Korea*

We describe a case of cutaneous angiomyolipoma found in the ear lobe, that is not associated with tuberous sclerosis. The lesion developed on the youngest patient yet reported in the literature. (Ann Dermatol 8:(4)247~249, 1996).

Key Words : Angiomyolipoma

Angiomyolipoma is considered to be a rare variant of lipoma or benign vascular tumor almost exclusively found in the kidney and frequently associated with tuberous sclerosis.[1] Serveral cases of extrarenal angiomyolipoma developing in the vagina, retroperitoneum, liver, and nasal cavity have been reported[2]. Some case of cutaneous angiomyolipoma have also been reported since Argenyi et al provided the original case[3,4]. We describe a new case of cutaneous angiomyolipoma developed on the earlobe. The patient was a 32 year-old man. This is the youngest case among the previously reported cases in the literature[5,6].

REPORT OF A CASE

A 32 year-old male had had a painless tumor on his left earlobe for 5 years. Physical examination revealed an erythematous, bean-sized (1.2cm x 1.5cm), soft, non-tender, telangiectatic surfaced nodule on his left earlobe(Fig. 1). Clinically, the lesion appeared to be a lipoma or epidermal cyst. The nodule was completely excised and the specimen was embedded for paraffin-block. Microscopically, the hematoxylin and eosin stained sections revealed the composition of the tumor. The tumor consisted mainly of mature fat cells. However, distinctive features included the presence of non-striated muscle fibers and small to medium sized vascular spaces(Fig. 2 a,b). There were no features of malignancy, such as cytologic atypia or increased mitotic activity. We also stained sections with desmin and factor Ⅷ for confirmation of our findings. The muscle bundles scattered between the fat cells stained positive for desmin and the endothelial cell lining of the vascular spaces stained strong positive for Factor Ⅷ(The results are not presented here).

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Reprint request to : Yong Suk Lee, M.D., Department of Dermatology, Seoul National University College of Medicine, Seoul, Korea

DISCUSSION

Angiomyolipoma has been reported to be a rare tumor of the kidney[1], frequently associated with tuberous sclerosis or pulmonary lymphangiomyomatosis and angiomyolipomas have been regarded as biologically benign hamartomatous neoplasms[5]. Some reporters described several cases of angiomyolipoma that developed in other locations, such as the liver, spleen, penis, retroperitoneum or head and neck area[2]. Argenyi et al[3,4], described a case of cutaneous angiomyolipoma not related with tuberous sclerosis or pulmonary lymphangiomyomatosis.

Mehregan et al[5] discussed the nature and definition of cutaneous angiomyolipoma. They described cutaneous angiomyolipoma occurring late in life (during the fifth to sixth decade), mainly in males

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and the clinical impression was of either a lipoma or a cyst. Microscopically, angiomyolipoma is a well-circumscribed nodule composed of smooth muscle, vessels, and mature fat tissues. They also discussed the differential diagnosis of an angiomyolipoma histologically from angiolipoma or angioleiomyoma[5]. Fizpatrick et al[6] proposed that the distribution of these three components varies from case to case.

There have been some reports on differential diagnosis of angiomyolipoma from other diseases. Tamura et al[7] suggested that angiomyolipoma was a unique clinico-pathologic entity differing from angioleiomyoma by the location of tumor and the absence of symptoms, such as pain and tenderness in angiomyolipoma. Also, Rodrigues-Fernandez et al[8] proposed the histologic differential diagnosis of cutaneous angiomyolipoma from pleomorphic lipoma.

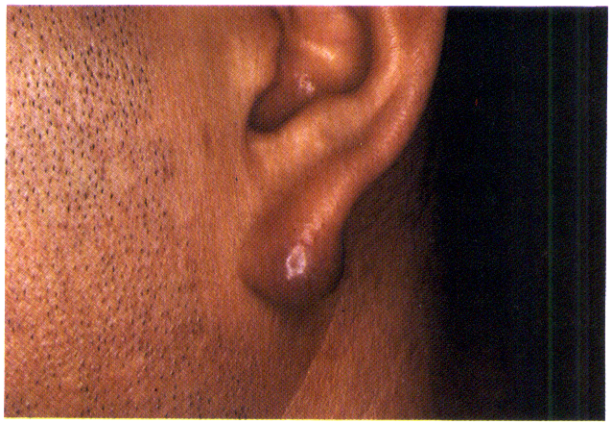
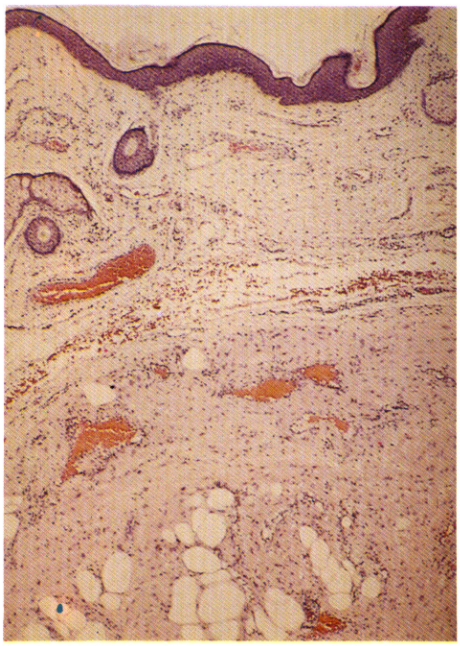


Fig. 1. Clinical appearance of the skin nodule on patient's left earlobe.



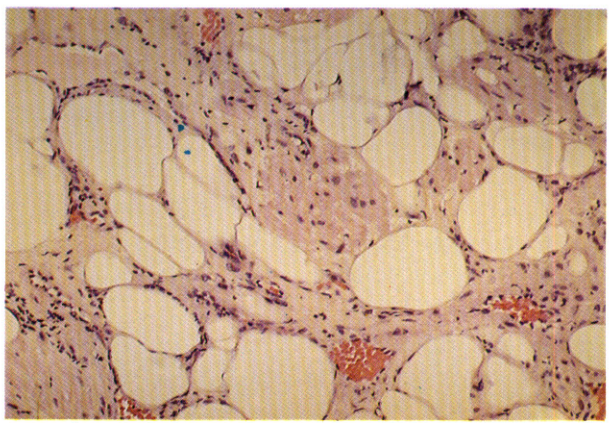


Fig. 2. (a) A representative field of the tumor, that is well remarked from the epidermis. The tumor is composed of smooth muscle fibers, vascular spaces with the endothelial cells lined, and adipose tissues (H&E stain × 40). (b) High-magnifying view shows smooth muscle fibers scattered throughout fat cells and vessels(H&E stain × 200).

In our case, there was no clinical or laboratory evidence of any association with tuberous sclerosis or any other disease. The patient did not complain of pain and tenderness of the tumor in our case and the pathologic findings showed the three major components of an angiomyolipoma ; smooth muscle fibers, variable sized vessels, and mature fat tissues[7,8]. The patient was the youngest case among the previously reported cases in the literature[3-8].

In conclusion, we describe a case of cutaneous angiomyolipoma and suggest that this tumor can appear early in life which differs from other reporters' views[5,6].

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