

Pyogenic Granuloma of External Auditory Canal: A Reversible Functional cum Cosmetic Defect.

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Abstract

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Introduction

Pyogenic granuloma (PG) is also known as lobular capillary Haemangioma¹

Hemangiomas are benign vascular soft tissue tumors found commonly in the head and neck region².

While PG of oral and nasal cavities is fairly known, the evidence in external auditory canal (EAC) is rarely reported.

Case Report :

We report a case of 17 years old adolescent female, resident of Dehradun, presenting to ENT OPD with complaints of protruding visible mass with fullness of left ear since past 3-4 months. She also noticed to have a gradual diminished hearing and mild discharge. However there was no history of trauma, earache, fever, vertigo or any bleeding episodes. She denied using cotton buds.

Past and personal history was insignificant

On examination, left EAC revealed a reddish pink soft to firm fleshy, painless, non-pulsatile mass measuring approximately 12x10x10 mm. [Figure 1]

The temporal HRCT showed a well-defined soft tissue mass lesion involving posterior wall of cartilaginous left EAC and Pinna suggestive of a polyp. [Figure 2]

Patient underwent surgical excision of the lesion which was sent for histopathological examination.

We received in multiple tiny grey white soft tissue pieces together measuring 12x10x5 mm.

Microscopic examination showed a mucosal tissue bit with unremarkable epithelium. The subepithelial tissue comprised of a lobular arrangement of capillaries and endothelial cells along with proliferating fibroblasts and intervening subacute inflammatory infiltrate [Figure 3].

Discussion :

In 1904, Hartzell coined the term “PG” or “Granuloma Pyogenicum”³.

PG is a benign vascular tumor of skin and mucosa that usually occurs following trauma, irritation or any underlying immune deficiency resulting in angiogenic dysregulation. Due to the constant irritation and tissue injury, there may be activation of a neovascular pathway involving FLT4 and nitric oxide synthases⁴ leading to capillary and endothelial proliferation, as seen in PG. However it is a misnomer as it represents an angiomatous lesion histologically rather than a granulomatous lesion.

Pyogenic granuloma may occur at all ages but is most commonly diagnosed in the second decade of life in young adult females, possibly because of the vascular effects of female hormones⁵.

PG shows a striking predilection for gingiva however, it can occur at other sites like lips, tongue, buccal mucosa, and palate⁶.

Our case is also a young healthy female, apprehensive due to the visible left auricular mass which was gradually hampering her hearing. It is the unusual location of the lesion, which makes this case interesting.

At present, multiple treatment modalities including surgical excision, curettage, cryotherapy, electro-dissection or chemical cautery, laser ablation, sclerotherapy and microembolization are available. Although overall recurrence rates may vary.

Conclusion :

EAC is a rare site for occurrence of PG, that too in a young healthy immunocompetent individual with no prior history of trauma. This case report highlights the fact that clinical suspicion of PG cannot be solely ruled out by local examination or radiological investigations alone and needs to be supplemented by histopathology for affirmation of the lesion. Surgical intervention may help in restoration of both functional and cosmetic defects induced by PG.

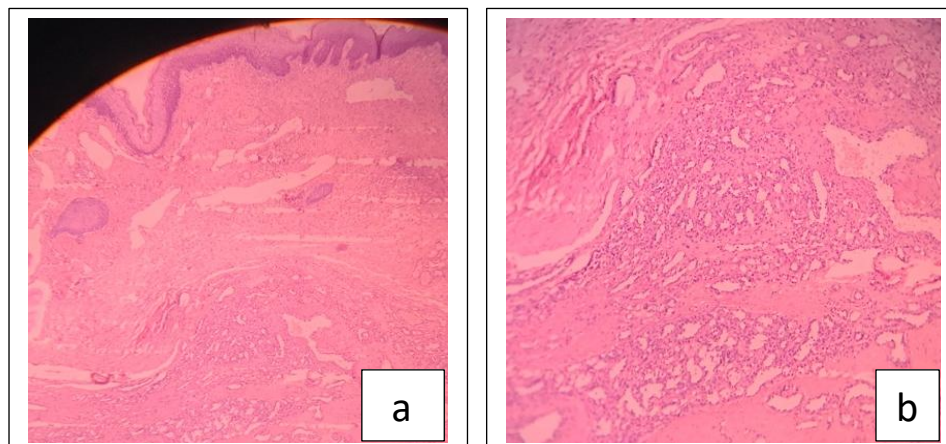
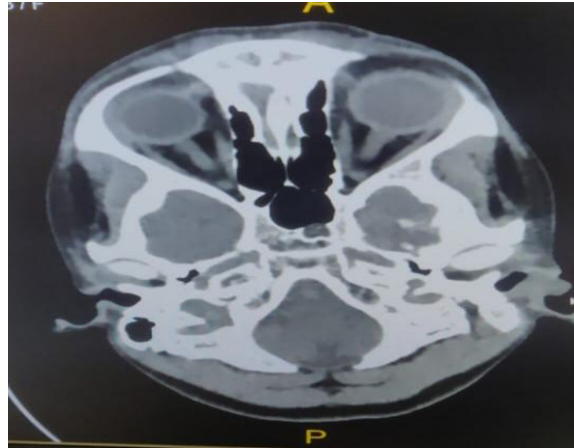
References

1. Thomas J, Sindhu BR. Pyogenic granuloma at ear piercing site: report of a case. *Indian Dermatol Online J* 2014;5:347–50.
2. Martines F, Bentivegna D, Maira E, Marasa` S, Ferrara S. Cavernous haemangioma of the external auditory canal: clinical case and review of the literature. *Acta Otorhinolaryngol Ital.* 2012;32(1): 54-57.
3. R.Kamal, A. Puri, P. Dahiya. Oral pyogenic granuloma: various concepts of etiopathogenesis. *J Oral Maxillofac Pathol.*2012;16(1):79.
4. Godfraind C, Calicchio ML, Kozakewich H. Pyogenic granuloma, an impaired wound healing process, linked to vascular growth driven by FLT4 and the nitric oxide pathway. *Modern Pathology.* 2013Feb;26(2):247-55.
5. Lawoyin JO, Arotiba JT, Dosumu OO. Oral pyogenic granuloma: a review of 38 cases from Ibadan, Nigeria. *Br J Oral Maxillofac Surg.* 1997;35(3):185-89.
6. S.N. Bhaskar and J.R.Jacoway,” Pyogenic granuloma-clinical features, incidence, histology, and results of treatment: report of 242 cases,” *Journal of Oral Surgery.*1966;24(5):391-98.

[Fig-1]: Protruding fleshy mass in the left EAC



[Fig-2]: HRCT left temporal showing mass in left EAC (coronal view).



[Fig-3] : Photomicrograph showing lobular tumor in subepithelium composed of thinly walled blood vessels and proliferating fibroblast (a) Scanner view,4x(H&E) (b) Low power view, 10x(H&E).