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*Case Report*

# Chondroid syringoma of the scalp: a rare skin adnexal tumor

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**Abstract.** Chondroid syringoma is a rare skin adnexal tumor constituting 0.01% to 0.1% of all primary skin tumors. Herein we report a case of benign chondroid syringoma in a 47-year-old male patient presenting with an asymptomatic, solitary swelling on the scalp. Fine needle aspiration cytology of the lesion suggested a possibility of skin adnexal tumor. Wide excision of the tumor was performed and histopathology revealed components of both epithelial and mesenchymal origin resembling pleomorphic adenoma of salivary gland.

**Keywords**: Chondroid syringoma, skin, adnexal tumour, benign

## Introduction

Chondroid synringomas (CSs) are mixed tumors of the skin, having both epithelial and mesenchymal constituents [1]. Hirsch and Helwig gave them the appellation chondroid syringoma, because of the presence of sweat gland elements which are set in a cartilaginous stroma. It is a rare primary skin tumor; the incidence is < 0.01% and affects middle aged and older men [2]

## Case Report

A 47-year-old man presented with a skin colored nodular swelling on the scalp measuring around 3x2cm in size. It was present since 3 years and was gradually increasing in its size. Physical examination revealed a palpable swelling in the right frontal aspect of the scalp in subcutaneous plane. The swelling was non-tender and was not associated with any other skin lesions with the same features. A provisional clinical diagnosis was made of a dermoid cyst. Fine needle aspiration cytological examination revealed a possibility of a benign skin adnexal tumor. He underwent an excisional biopsy of the swelling. Grossly tumor was unencapsulated measuring around 2.5x2.5x1.5cm, grey white to grey brown in color with focal cystic space filled with mucoid material [Fig. 1].

Formalin fixed paraffin embedded routine Hematoxylin and Eosin sections revealed a circumscribed tumor tissue in dermis, with tumor cells arranged in small nests, cords and tubules within a dense hyalinised stroma with focal chondromyxoid changes. Cells were round to ovoid with small nuclei, inconspicuous nucleoli and eosinophilic to clear cytoplasm [Figs. 2 and 3]. Few large cysts showed eosinophilic material and cholesterol clefts. There was no evidence of atypical mitosis or necrosis. Since microscopically there was no feature of malignant changes, final histopathological impression of benign chondroid syringoma was imparted. The postoperative course was uneventful. At the last follow-up visit 6 months after the surgery, there were no signs of recurrence.

## Discussion

CSs are quite rare skin tumors and account for only about 0.01% to 0.01% of primary adnexal tumors [3]. CSs are usually considered to be benign, but they may recur post resection and some malignant cases with metastases have been reported [4]. CSs are solitary asymptomatic insidiously growing nodules on the head and neck, with a higher affinity for males than females (ratio about 2-3:1).

Most clinicians find it hard to classify these lesions due to the asymptomatic nature and rare presentations. Headington put forward the idea of two types of these lesions– apocrine (irregular branching tubules lined by epithelium) and eccrine (uniform, small tubules within a myxoid-chondroid matrix) [5].

Fine needle aspiration cytology (FNAC) is used for diagnostic purposes and may prove to be useful to determine the pathology before excision; however, examination of the excised tissue is most reliable in establishing a definitive diagnosis [2].

The apocrine CSs may show a variety of different adnexal differentiation (including follicular and sebaceous), while the eccrine CSs lack these [5]. Extensive research has previously suggested an eccrine origin for these

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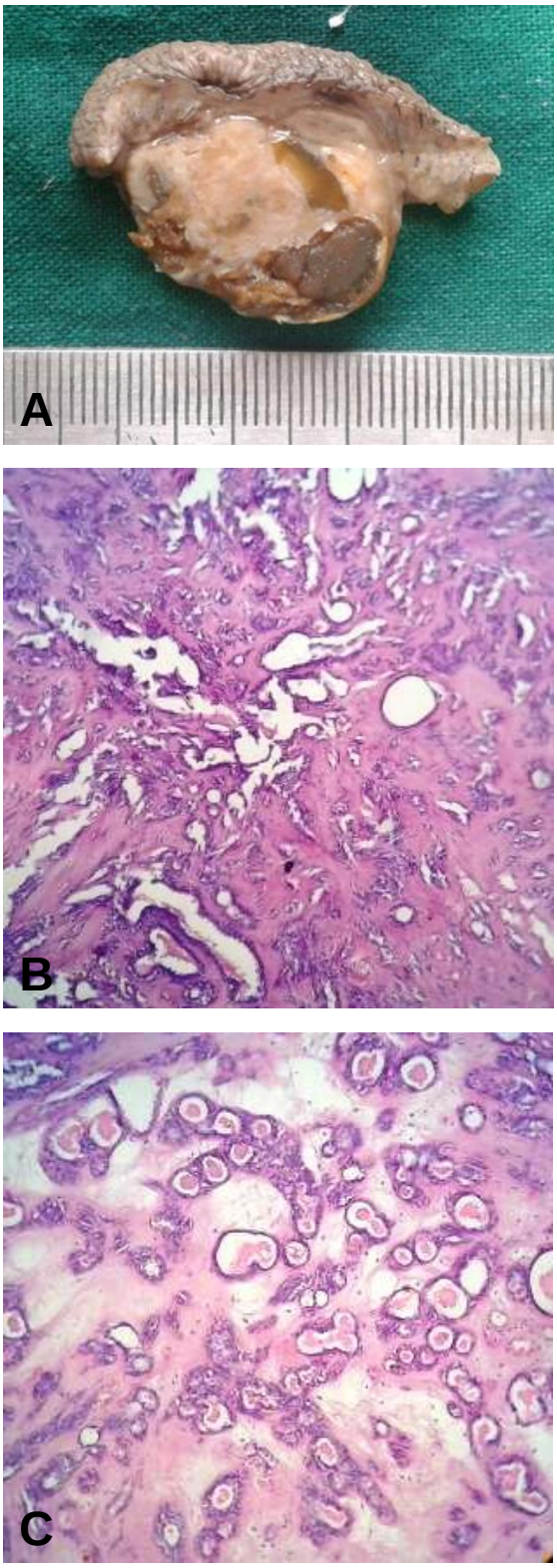


Fig 1: (A) Tumor was arising from skin measuring around 2.5x2.5x1.5cm, grey white to grey brown in colour with focal cystic spaces filled with mucoid material. (B) Tumor cells seen arranged in small nests, cords and tubules within a dense hyalinised stroma. (C) Nonbranching ducts and tubules set in chondromyxoid stroma.

tumors however after much controversy within this area, they are now thought to be apocrine [6]. Mills suggested that these mixed tumors are monoclonal neoplasms with replicating cells can differentiate into epithelial or mesenchymal entities, thereby accounting for the histological variability of these tumors [7]. Hirsch and Helwig described five histological criteria that make up this diagnosis: collections of cuboidal or polygonal cells, tubuloalveolar structures lined with cuboidal cells, ductal structures with rows of cuboidal cells, some keratinous cysts and a matrix of varying components [1].

The treatment modality of choice for benign CSs is surgical excision. FNAC is useful for diagnosis but examination of the excised tissue is the best way to deduce a definitive diagnosis [8]. It is important to include a margin of the tumor during excision to reduce chances of recurrence. Although some local recurrences have been reported, largely patients make an uneventful recovery like our case.

## Conclusion

Chondroid syringoma is a rare and usually benign subcutaneous tumor made up of mesenchymal and epithelial elements. It is usually suspected in middle-aged men presenting with lesions in the head and neck regions. The malignant form is usually seen in women, in the extremities or trunk. Magnetic resonance imaging can help identify the extent of the tumor but an FNAC is the intervention of choice for diagnosis. Excision is the best modality of management, with tissue biopsy then giving a clearer picture of the exact histological nature of the lesion.

## Conflict of Interest

The authors declare no conflicts of interest.

## References

1. Hirsch P, Helwig EB. Chondroid syringoma. Mixed tumor of skin, salivary gland type. Arch Dermatol 84:835-847, 1961.

2. Bhasin T S, Mannan R, Bhatia P K, Sharma M, Bhalla A. Fine needle aspiration cytology diagnosis of the eccrine variant of chondroid syringoma- case report of a rare entity with review of literature. J Clin Diagn Res 4:2641-2644, 2010.

3. Bekerecioglu M, Tercan M, Karakok M et al. Benign chondroid syringoma: A confusing clinical diagnosis. Eur J Plast Surg 25:316-318, 2002.

4. Tsoitis G, Papdimitriou C, Kanitakis J et al. Malignant cutaneous mixed tumor. Am J Dermatopathol 22:347, 2000.

5. Headington JT. Mixed tumors of skin: eccrine and apocrine types. Arch Dermatol 84:989-996, 1961.

6. Mandeville JT, Roh JH, Woog JJ et al. Cutaneous benign mixed tumor (chondroid syringoma) of the eyelid: clinical presentation and management. Ophthal Plast Reconstr Surg 20:110-116, 2004.

7. Mills SE. Mixed tumor of the skin: a model of divergent differentiation. J Cutan Pathol 11:382-386, 1984.

8. Agrawal V, Gupta RL, Kumar S et al. Malignant chondroid syringoma. J Dermatol 25:547-549, 1998.