

# Tubular Apocrine Adenoma – A Case Report of Rare Sweat Gland Tumor.

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Received: April 2017

Accepted: April 2017

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## ABSTRACT

Tubular apocrine adenomas (TAA) are rare, benign, slow growing, Skin adnexal tumors with limited reported cases in literature. Tubular apocrine adenomas resemble papillary eccrine adenomas, and these two tumors were once regarded as identical.[17] Here we present a case of tubular apocrine adenoma in a 47 years old female.

**Keywords:** Adnexal tumor, Syringocystadenoma papilliferum, Tubular apocrine adenoma.

## INTRODUCTION

Tubular apocrine adenoma is a rare, benign, sweat gland tumor that was first described in 1972 by Landry and Winkelmann.<sup>[1]</sup> Tubular apocrine adenoma is frequently found associated with other dermal neoplasms like nevus sebaceous/organoid naevus of Jadassohn (NS) and syringocystadenoma papilliferum (SCAP).<sup>[2]</sup>

Tubular apocrine adenoma is a well circumscribed, nodular, slow growing, intra dermal benign tumor with tubular structures showing apocrine differentiation. Clinically, the tumor generally presents as a dermal nodule 1-2 cms in diameter or pedunculated lesion, frequently of many years duration.

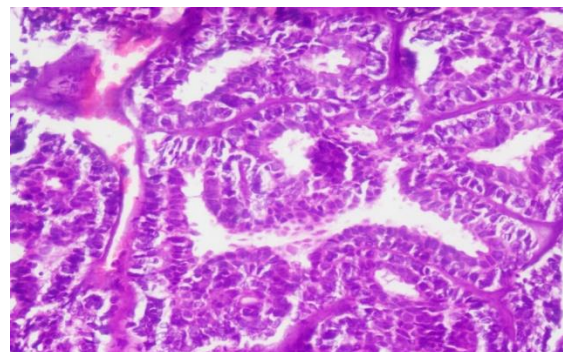
Tubular apocrine adenoma is characterized by dermal and subcutaneous tubular structures of apocrine type arranged in a lobular fashion and these lobules are composed of variable sized tubules lined by two cell layers.<sup>[9]</sup> The outer layer is cuboidal or flattened and the inner layer is columnar and exhibit decapitation secretions, as seen with apocrine sweat glands. The surrounding stroma is fibrous connective tissue with few plasma cells.<sup>[1]</sup>

We report here on a case of tubular apocrine adenoma that developed on right temporal region in a middle aged female.

## CASE REPORT

A 47 years old woman presented with a painless, slow growing, mobile nodule on right temporal region of one year duration. The lesion measured 0.2 cm in diameter. The patient had a simple excision of the nodule.

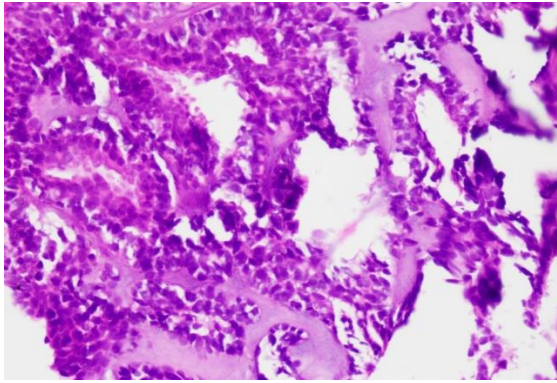
Histologically, the tumor was composed of numerous irregular tubular structures lined by two layers of epithelial cells. The peripheral layer consisted of cuboidal cells and the inner layer was composed of columnar cells [Figure 1]. Decapitation secretions of luminal cells were seen in many areas. Some of the tubules had dilated lumen with pseudopapillary projections. Tubules were encased by hyalinized stroma [Figure 2]. Neither epidermal invagination nor infiltration of plasma cells was seen. Atypia and mitosis were not observed in tumor cells. These findings collectively supported a diagnosis of tubular apocrine adenoma.



**Figure 1: Tubular apocrine adenoma. The histology of the tumor shows variable sized tubular Structures lined by two layers of epithelium with evidence of decapitation secretions of the luminal cells. (H&EX40).**

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**Figure 2: The tubules are embedded in hyalinized stroma. (H&E X 40).**

## DISCUSSION

Tubular apocrine adenomas are rarely reported skin adnexal tumors with about 50 reported cases in the literature. TAA is predominantly found in women with a M:F ratio of 1:2.<sup>[2,3]</sup> The wide age distribution ranges between 6 days<sup>[15]</sup> and 78 years.<sup>[6]</sup> The finding of a tubular apocrine adenoma in a female of middle age in our case is in concordance with what others have reported.<sup>[1-7,10,12,14-18]</sup>

Tubular apocrine adenoma is found most commonly on the scalp but lesions have also been described at a variety of other sites including the face,<sup>[6]</sup> eyelid,<sup>[18]</sup> axilla,<sup>[3]</sup> leg and genitalia.<sup>[4,11,17]</sup> However, Lee et al reported a case in the external auditory canal.<sup>[5]</sup> Over half of them occur above the level of the shoulders.<sup>[2]</sup> In our case, the site of tumor was right temporal region, which was in consistence with fact that majority of the reported tubular apocrine adenomas occurred above the level of the shoulder . This body distribution is surprising since apocrine glands are found usually in the axilla and anogenital regions and have very limited distribution in the body otherwise.

Tubular apocrine adenomas are commonly found with other dermatologic neoplasms. In 40% of reported cases, the patient also had a nevus sebaceous and/or syringocystadenoma papilliferum but in our case no such associated tumor was found.<sup>[10-15]</sup>

The tubular apocrine adenoma is benign in nature and recurrence following excision is uncommon. Theories regarding the origin of the tumor have been developed.<sup>[7]</sup> These tumors might develop from pluripotent appendageal cells,<sup>[8]</sup> primary epithelial germ cells, or cells of pre-existing structures.

The management of this tumor has consistently been excision of the lesion to negative margins. The relatively limited number of reported cases has posed hindrance to complete understanding of this tumor but this is a rare tumor that the pathologist should be aware of and consider within their differential diagnosis as there is some tendency for perineural invasion.<sup>[16]</sup>

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**How to cite this article:** Sharma A, Kundal R, Singh H. Tubular Apocrine Adenoma – A Case Report of Rare Sweat Gland Tumor. *Ann. Int. Med. Den. Res.* 2017; 3(3):PT44-PT45.

**Source of Support:** Nil, **Conflict of Interest:** None declared