ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 09, pp.38126-38127, September, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

CHONDROID SYRINGOMA WITH SQUAMOUS METAPLASIA: DIFFICULT DIAGNOSIS ON CYTOLOGY: AN INTERESTING CASE REPORT

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ARTICLE INFO

Article History:
Received 23rd June, 2016
Received in revised form
29th July, 2016
Accepted 19th August, 2016
Published online 20th September, 2016

Key words:

Chondroid, Syringoma,
Apocrine, Pilomatrixoma.

ABSTRACT

Chondroid syringoma or mixed tumor of skin is an uncommon benign skin adnexal tumor of eccrine/apocrine origin constituting nearly 1 % of the total skin tumors. Chondroid syringoma shows marked variation in morphology. Chondroid syringoma with squamous metaplasia is a difficult clinical and cytological diagnosis on cytology because of overlapping cytological features with skin adnexal lesion like pilomatrixoma. We present a case report of 25 year old women, presented with right cheek swelling for duration of three months. The prominent cytological findings were abundant squamous cells in the cytological aspirate along with basaloid epithelial cells component and chondroidmyxoid matrix. This case provides insight in to how Chondroid syringoma with squamous metaplasia because of its unusual cytological findings presents as a diagnostic challenge on cytology.

Citation: Ankit Kaushik, Kusum Gupta, Neha Tyagi and Sachin Kolte. 2016. "Chondroid syringoma with squamous metaplasia: difficult diagnosis on cytology: An interesting case report", *International Journal of Current Research*, 8, (09), 38126-38127.

INTRODUCTION

Chondroid syringoma also known as mixed tumor of skin was introduced first in 1961. It is an uncommon benign skin adnexal tumor of eccrine/apocrine origin constituting nearly 1 % of the total skin tumors with predilection to head and neck (Khan, 2013 and Bekerecioglu *et al*., 2012). The tumor is called mixed because of presence of epithelial component with accompanied mesenchymal changes. It is a solitary dermal lesion usually of size 1 -2 cm with normal overlying skin. Although Fine needle aspiration cytology (FNAC) is established as a reliable technique for the diagnosis of Chondroid syringoma (Khan, 2013), variations like squamous metaplasia can present a significant diagnostic challenge; here we are presenting such an interesting case in which a correct cytological diagnosis was made and the differential diagnosis is discussed.

Case report

25 year old women presented to cytology section with a solitary slowly growing, non tender cheek swelling for duration of 3 months. The swelling was primarily subcutaneous; 1.5x1 cm, movable over underlying structure. A clinical diagnosis of a parasitic lesion was considered.

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On FNAC the aspirate was fluid mixed. The smears were moderately cellular with clusters of cohesive small sized epithelial cells in sheets and clusters, with scattered my epithelial cells along with clusters of anucleate squamous cells and fibrillary chondroid myxoid stroma. The cytoplasm of epithelial cells was moderate in amount with central to eccentrically placed nuclei with bland chromatin (Figure 1). The background showed occasional giant cells. A primary diagnosis of Chondroid syringoma with squamous metaplasia was rendered and excision biopsy and histopathology was advised. Histopathology showed epithelial cells arranged in extensive tubular pattern with marked variation in shape and size and with an inner layer of cuboidal cells and outer layer of flattened epithelial cells. Major areas showed extensive squamous metaplasia in the form of keratin (Figure 2). Histopathology confirmed the cytological diagnosis of Chondroid syringoma with extensive squamous metaplasia.

DISCUSSION

Chondroid syringoma is rare benign skin adnexal tumor that is being considered to have originated from the secretory and ductal component of sweat gland. Although being a tumor of adult males, it can show wide variation in age of presentation. The diagnosis of Chondroid syringoma is difficult to make on clinical examination. Chondroid syringoma can presents with unusual cytological features but FNAC can acts as a rapid and reliable way of diagnosing the lesion (Kumar *et al*., 2010). On

FNA the aspirate is usually mucoid and gelatinous (Khan, 2013). The smears shows biphasic component-cellular and stromal elements (Nasit, 2012).

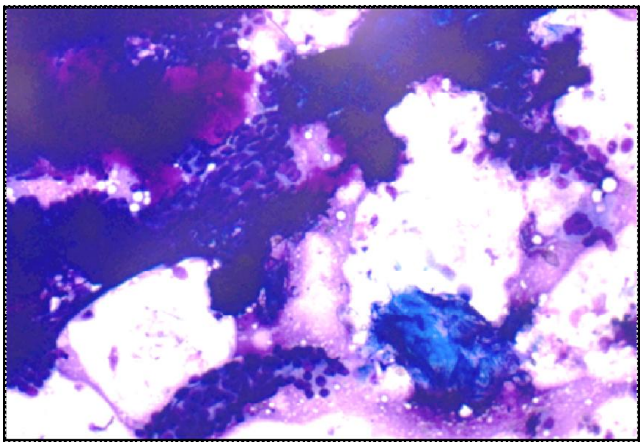

Figure 1. Photomicrograph showing moderately cellular smear with clusters of cohesive small sized basaloid epithelial cells in sheets and clusters along with chondromyxoidstroma and extensive clusters of anucleate squamous cells

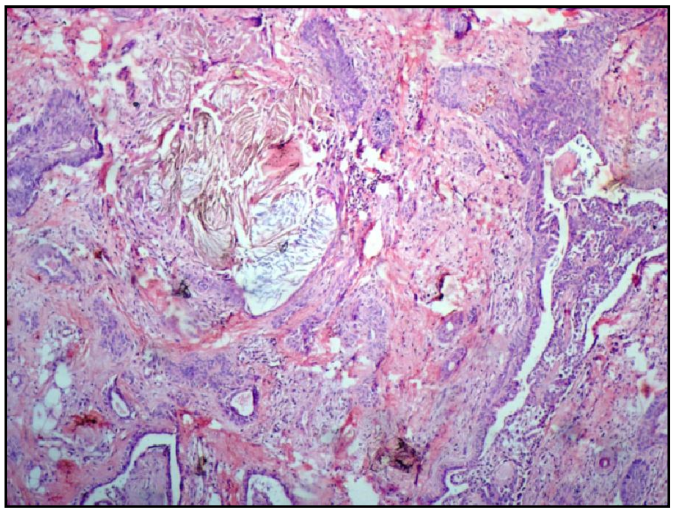

Figure 2. Photomicrograph showing epithelial cells arranged in tubular pattern with marked variation in shape and size and extensive squamous metaplasia in the form of keratin

The smear shows small basaloid like epithelial cells in clusters, oval to round myoepithelial cells with eccentric nuclei along with abundant chondromyxoid matrix. In the present case the aspirate showed clusters of epithelial cells, chondromyxoidstroma, clusters of mainly anucleate squamous cells and foreign body giant cell reaction. The cytological finding along with clinical presentation produces the differential diagnosis of pilomatrixoma and Chondroid syringoma with squamous metaplasia. The presence of classical fibrillarychondromyxoidstroma along with plasmacytoid myoepithelial cells in the smears along with absence of ghost cells lead to a diagnosis of Chondroid syringoma with squamous metaplasia in spite of presence of multinucleated foreign body giant cell reaction that may come in response to keratin in squamous metaplasia.

The other common cytological differential diagnosis of Chondroid syringomaare metatypical BCC with stromal hyalinization and malignant mixed tumor of the skinbut were not considered in our case because the neoplastic cells had well defined cytoplasm and normal nuclei (Daskalopoulou, 1998). Histologically this tumor is biphasic and composed of epithelial and stromal elements consisting of nests of cells with a lace-like stranding pattern of epithelial cells and tubuloalveolar structures in a loose chondromyxoidstroma. The cells vary in shape from cuboidal to polygonal, and forms ducts and trabecular cords. The inner layer is made of cuboidal epithelial cells and outer layer of flattened myoepithelial cells embedded in chondromyxoidstroma. Epithelial cells shows positivity for keratin markers, like CAM5.2; and myoepithelial cells for S-100. Extensive keratinization is found in case of squamous metaplasia, as seen in our case. Because of associated risk of malignancy an accurate diagnosis of Chondroid syringoma is absolutely essential and extensive squamous metaplasia in Chondroid syringoma may present a significant diagnostic challenge on cytology.

Conclusion

Chondroid syringoma with squamous metaplasia is a difficult clinical and cytological diagnosis because of clinical misinterpretation and overlapping cytological findings with lesions like pilomatrixoma. Both pilomatrixoma and Chondroid syringoma with squamous metaplasia shows small epithelial cells in clusters, squamous cells and giant cell reaction, but as shown in this case report, presence of extensive chondromyxoidstroma and absence of calcification clinches the final diagnosis of Chondroid syringoma with squamous metaplasia.

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