Mypithelioma possibly originating from the accessory salivary gland-Cytological and histological findings in a rare case

K Mardi, J Sharma

Citation

K Mardi, J Sharma. *Mypithelioma possibly originating from the accessory salivary gland-Cytological and histological findings in a rare case*. The Internet Journal of Pathology. 2007 Volume 7 Number 2.

Abstract

Myoepithelioma is a rare, benign tumor of the salivary gland, most commonly affecting the parotid gland. Cytological and histological findings of an extremely rare case of benign myoepithelioma in ectopic salivary gland tissue , located in the lateral side of the neck is described . Histopathology of the resected tumor and immunohistochemical staining revealed spindle cell myoepithelioma.

INTRODUCTION

Myoepitheliomas are composed entirely of myoepithelial cells of spindle cell or plasmacytoid morphology. Although the cytologic features of myoepithelioma are documented in a few case reports, it has rarely been diagnosed preoperatively by fine needle aspiration (FNA) cytology. We describe the cytological and histological features in a rare case of myepithelioma arising in the accessory salivary gland, located in the lateral side of the neck of a 25 year old male.

CASE DISCUSSION

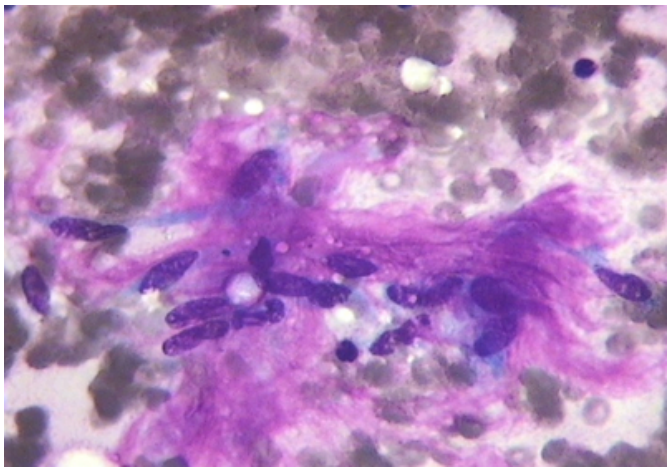
A 25 year old male presented with a slowly growing swelling in the left lateral side of the neck since 5years.On examination there was a soft to firm, mobile nontender mass, measuring12.5cm in diameter, situated on the left side of neck ,anterior to the sternocleidomastoid muscle.

CYTOLOGICAL FINDINGS

FNAC smears showed loosely cohesive clusters of spindle cells in a fibrillary myxoid matrix. These spindle cells were showing elongated blunt ended nucleus, bland nuclear chromatin with inconspicuous nucleous and scanty basophilic cytoplasm. Mitotic figures were absent(fig1).Possibilities of myoepithelioma and low grade fibromyxoid sarcoma were suggested

Figure 1

Figure 1: FNA smears showing benign spindle cells in a fibrillary myxoid matrix(Giemsa,40x)

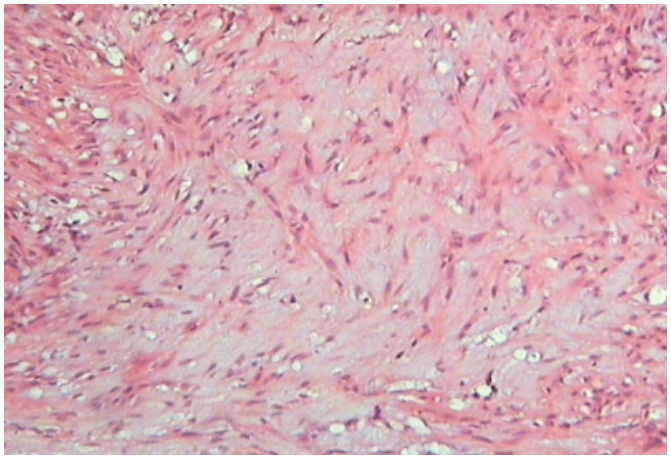


GROSS AND MICROSCOPIC FINDINGS

The mass was excised and sent to us for histopathological examination. On gross examination, there was a wellcircumscribed, well encapsulated soft tissue mass. Cutsection was grey white in colour with areas of congestion. On microscopic examination,there were intersecting fascicles of bland spindle cells with eosinophilic cytoplasm (fig2). These cells lacked pleomorphism or mitotic activity. The tumour cells showed cytoplasmic immunoexpressions of S-100 protein and smooth muscle actin (SMA). A diagnosis of spindle cell myoepithelioma of accessory salivary gland is rendered.

Figure 2

Figure 2: Photomicrograph showing sweeping fascicles of bland spindle cells (H&E.10x)



DISCUSSION

Heterotopic salivary tumours in the upper neck are rare[1] Oncogenesis of heterotopic salivary tissue entrapped in an upper cervical lymph node during embryogenesis is a possible etiological mechanism[1]. Chang WY et al[2] support the argument that the embryogenesis of heterotopic salivary gland tissue is more probably related to ectodermal heteroplasia of the precervical sinus of His and further conclude that an association with branchial cleft sinus may exist and cannot be seen as an exclusion criteria for diagnosis .

Myoepithelioma arising in such ectopic salivary gland is extremely rare [3,4].Reported cases of benign tumors of ectopic salivary gland includes warthins tumor and pleomorphic adenoma1[5].

Although the cytologic features of myoepithelioma are documented in a few case reports, it has rarely been diagnosed preoperatively by fine needle aspiration (FNA) cytology. Das DK et al[6]have described the cytological features of myoepithelioma. FNA smears in their case showed bundles of spindle shaped cells as well as plasmacytoid and stellate cells in sheets and dissociated forms. A few cells had nuclear grooves, and occasional cells showed intranuclear cytoplasmic inclusions. In May-Grünwald-Giemsa-stained smears, most of the cells had reddish cytoplasm. Red to purple, myxoid matrix was present as a scanty fibrillar substance and as globules surrounded by tumor cells vaguely reminiscent of adenoid cystic carcinoma.Dodd et al[7] also confirmed that these tumors are composed of small spindly cells without distinct cytologic features.

Differentiating benign myoepithelioma from myoepithelial carcinoma can be extremely difficult cytologically, since myoepithelial carcinomas can be cytologically bland.Therefore, a diagnosis of myoepithelial neoplasm is prudent in the face of bland cytology. The cytologic evaluation of myoepithelioma, however, is limited by the wide range and heterogeneous nature of benign spindle cell tumors arising in this area, many of which share similar or show overlapping cytologic features, making the diagnosis of this rare tumor problematic.

Differential diagnosis of spindle cell myoepithelioma in this region includes low-grade fibromyxoid sarcoma, fibromatosis and benign smooth muscle tumors. Immunocytochemistry can aid in diagnosis. Almost all cases of myoepithelioma are strongly positive for S-100 protein,smooth muscle actin and cytokeratin. [8]

Complete excision is usually curative and in our case also, so far there has been no evidence of recurrence.

CORRESPONDENCE TO

Dr.Kavita Mardi ,MD,DNB Assistant Professor 12-A, Type V Quarters GAD Colony,Kasumpti, Shimla, H.P Telephone number:2623154 Fax number: 2623048 Email-kavitamardi@yahoo.co.in

References

1. Surana R.Moloney R,Fitzgerald RJ. Tumours of heterotopic salivary tissue in the upper cervical region in children.Surgical Oncol1993;2(2):133-6.
2. Chang WY,Lee KW,TsaiKB,ChenGS. Heterotopic salivary gland tissue: a case report demonstrating evolution and association with the branchial apparatus.J Dermatol 2005 ;32:731-6.
3. Isogai R, Kawada A, Ueno K, Aragane Y, Tezuka T: Myoepithelioma Possibly Originating from the Accessory Parotid Gland.Dermatology 2004;208:74-78
4. Kawashima Y, Kobayashi D, Ishikawa N, Kishimoto S. A case of myoepithelioma arising in an accessory parotid gland. J Laryngol Otol 2002 ;116:474-6.
5. Daniel E,Macguirt WF.Neck masses secondary to heterotopic salivary gland tissue: a 25-year experience. Am J Otolaryngol 2005 ;26(2):96-100.
6. Das DK,Haji BE,AhmedMS,Houssain MN. Myoepithelioma of the parotid gland initially diagnosed by fine needle aspiration cytology and immunocytochemistry: A case report.Acta cytol2005; 49: 65-70.
7. Dodd LG,Caraway NP,Luna MA,byers RM. Myoepithelioma of the parotid Report of a case initially examined by fine needle aspiration biopsy.Acta Cytol1994;38:417-21.
8. Simpson R, Jones H, Beasley P. Benign myoepithelioma of the salivary glands: a true entity? Histopathology. 1995; 27: 1-9.

Author Information

Kavita Mardi, MD,DNB.
Assistant Professor, Dept of pathology, Indira Gandhi Medical College

Jaishree Sharma, M.D.
Professor, Deptt. of Pathology, Indira Gandhi Medical College