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PAPILLARY CARCINOMA IN A THROGLOSSAL CYST: CASE STUDY OF TWO CASES AND REVIEW OF LITERATURE.

Pathology

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KEYWORDS

INTRODUCTION:

Case Reports

We present a case of 54 years old women who presented with swelling of upper neck. There was no history of dysphagia, hoarseness of voice or fever. On physical examination there was painless swelling, which was moving with deglutition but not with protrusion of tongue. Swelling was 3x 2 .5cm in diameter, diffuse, non-tender and not fixed with underlying structures.

No palpable lymphadenopathy was noted. Routine blood investigations and thyroid function tests (T3, T4 and TSH) were normal. FNAC revealed benign cystic lesion. Ultrasonography showed normal thyroid with no evidence of hypo echoic nodules and lymphadenopathy. A clinical diagnosis of suprahyoid thyroglossal cyst was made.

Histopathological examination revealed fibro collagenous wall of the cyst lined by stratified squamous epithelium and many foci of papillary tumour lined with cuboidal epithelial cells with predominant papillary pattern with mild pleomorphism and vesicular nuclei, and psammoma bodies indicating papillary carcinoma limited within the cyst. Normal residual thyroid follicles were noted in the periphery.

A diagnosis of papillary thyroid carcinoma in thyroglossal cyst was made.

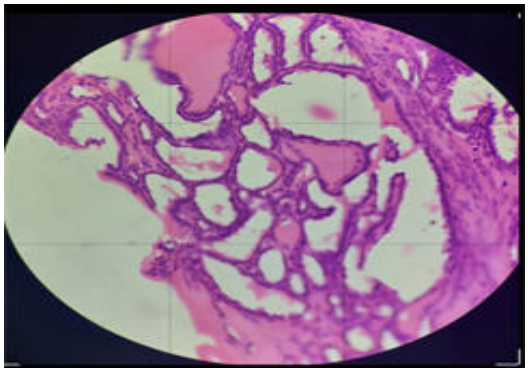

Fig.1.1 (H&E:20X)showing normal thyroid follicles in the periphery of cyst wall.

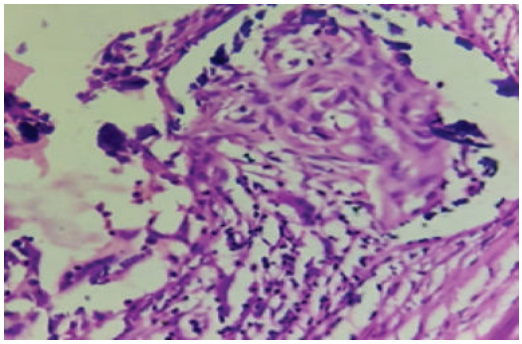

Fig 1.2 Histopathology picture (H&E :20X)showing fibrocollagenic wall lined by stratified squamous epithelium.

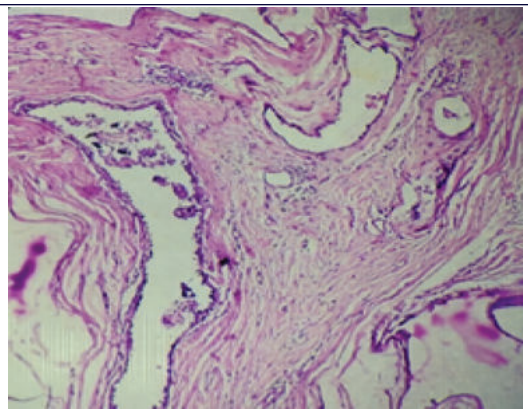

Fig 1.3.(H&E:20X)showing fibrocollagenic wall with papillary carcinoma emnating from TGDC confined to thyroglossal cyst.

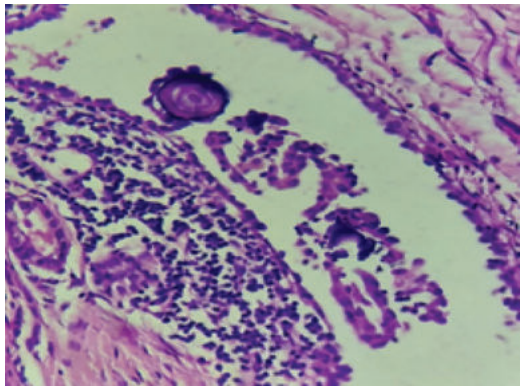

Fig 1.4 (H&E:40X) psomomma body.

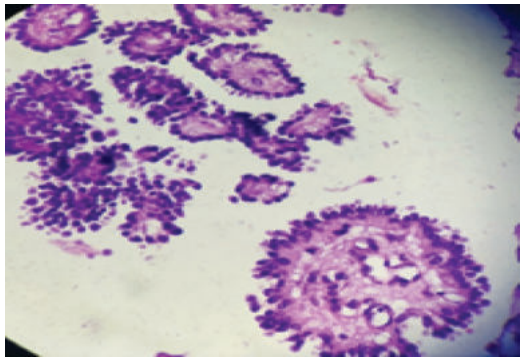

Fig 1.5. (H&E:40X)showing papillary carcinoma lined by cuboidal cells depicting clearing and mild pleomorphism.

2. A case of who presented as a painless cystic mass in lateral aspect of neck on initial physical examination. On Fine needle aspiration colloid goiter with cystic lesion was reported. Surgery was performed and a provisional diagnosis of brachial cyst was made.

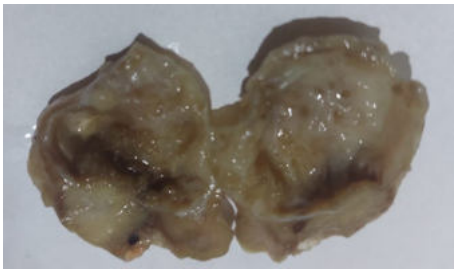

Fig.2.1.Gross: Excised specimen: showing a thyroglossal cyst and peripheral solid area.

Histopathology revealed a thyroglossal cyst wall lined by low cuboidal epithelium and many complex papillae containg fibro vascular cores and lined by cells showing nuclear clearing, intranuclear grooves and intra nuclear inclusions, emanating from the wall of the cyst which contained a primary invasive papillary carcinoma that was infiltrating the cyst wall.

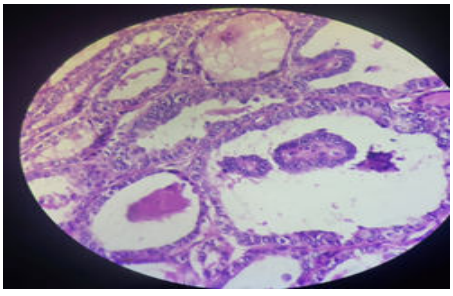

Fig 2.2: 40X Papillary carcinoma showing nuclear clearing, Intranuclear grooves and inclusions.

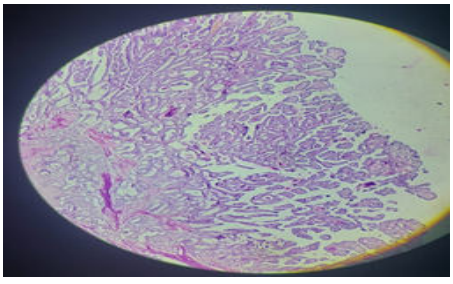

Fig 2.3:20X papillary carcinoma arising from thyroglossal duct cyst.

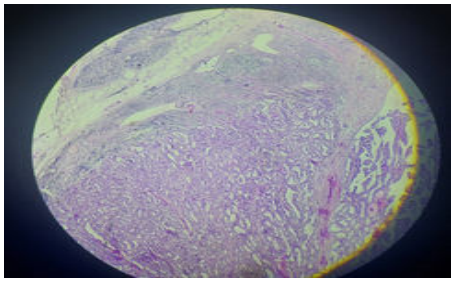

Fig 2.4: 20X : papillary carcinoma arising from cyst wall and invading the wall of cyst.

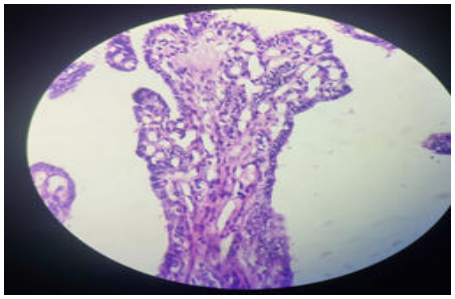

Fig 2.5:40X a papilla showing fibrovascular core lined by cells depicting nuclear features.

One of the lymph node removed during surgery did not show tumor invasion.

Thus a diagnosis of papillary carcinoma in Thyroglossal cyst infiltrating the cyst wall was made.

DISCUSSION

Papillary thyroid carcinoma is reported in 85 – 91% of cancer cases associated with thyroglossal cyst followed by mixed follicular and squamous papillary. Its presentation is usually the same as that of a benign cyst which represent the most frequent benign congenital lesion of neck. Its more common in adults with a 2.3: 1 female to male ratio.

Regarding pathogenesis of this entity two theories have been proposed for its origin. It develops as a direct metastasis of a papillary thyroid carcinoma or is generated de novo from ectopic thyroid tissue located in the cyst which is reported to be present in upto 12% of the pieces of pathology obtained.

Since both pathologies present clinically in a very similar way, the diagnosis is usually a finding in histopathological report.

Suspicion of a carcinoma of thyroglossal cyst can be suspected from the affection of surrounding tissue, atypical location, firmness of the same or involvement of adjacent structures, risk factors such as radiation as well as the presence of adenopathies or alteration of the same thyroid gland.

CONCLUSION

Papillary thyroid carcinoma can sometimes present in thyroglossal cyst and patient's presentation can be highly variable. Solitary cystic neck swellings must be treated with high index of clinical suspicion and histopathology is the gold standard in diagnosis. In cases, which present as masses with infrequent localization as well as those invading adjacent tissues, ultrasonography can be of great help.

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