



ANAPLASTIC CARCINOMA OF THYROID: LYMPHOEPITHELIOMA LIKE VARIANT WITH METASTASIS TO LYMPH NODE – A RARE CASE REPORT

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ABSTRACT

Anaplastic Carcinoma of thyroid is a very rare form of thyroid malignancy and exhibits markedly aggressive nature. The mean survival rate for patients with anaplastic carcinoma of thyroid is less than 6 months. Due to its poor prognosis and aggressive nature of the tumour, we report a case of a 52 year female with complaints of midline neck swelling since 1 year along with dysphagia. Computed tomography of neck revealed abnormal enhancing complex and heterogenous solid cystic lesion in the right lobe of the thyroid. Fine needle aspiration was suggestive of Lymphocytic thyroiditis with few atypical cells. Right Hemithyroidectomy was performed and histopathology suggested Anaplastic Carcinoma: lymphoepithelioma like variant with focal Insular carcinoma component with lymph node metastasis.

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INTRODUCTION

Thyroid cancer is a malignancy originating from the follicular or parafollicular thyroid cells. Malignant tumours of follicular thyroid cells are divided into a well-differentiated type composed of papillary and follicular carcinoma, poorly differentiated i.e. Insular carcinoma and an undifferentiated type or anaplastic type [1]. Anaplastic Carcinoma of Thyroid is an uncommon malignancy but responsible for deaths in nearly half of all cases of thyroid malignancies [2]. We therefore report this case of Anaplastic Carcinoma: lymphoepithelioma like variant with focal Insular carcinoma component with lymph node metastasis in a 52 year female who presented with complains of midline neck swelling since 1 year along with dysphagia. Thyroid profile was done which was within normal limits.

Patient was sent for USG neck which showed large, solid cystic lesion in right lobe with small area of calcification and mild vascularity suggestive of neoplastic etiology. Computed tomography of neck revealed abnormal enhancing complex and heterogenous solid cystic lesion in the right lobe of the thyroid. Subsequently, fine needle aspiration cytology was performed which was suggestive of Lymphocytic thyroiditis with few atypical cells

following which Right Hemithyroidectomy was performed. On Gross, Right Hemithyroidectomy specimen measuring 7 x 6 x 3 cm in size along with 2 lymph nodes each measuring 1 x 1 cm in size was received. On Cut section almost entire normal thyroid tissue was replaced by predominantly solid, homogenous, firm, grey white mass with central sclerohyaline nodule & cystic area. A thin rim of normal thyroid tissue was seen at the periphery. (figure i & ii)



Figure i Sclerohyaline nodule (red arrow)

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Figure ii C/S solid, homogenous, firm, grey white mass

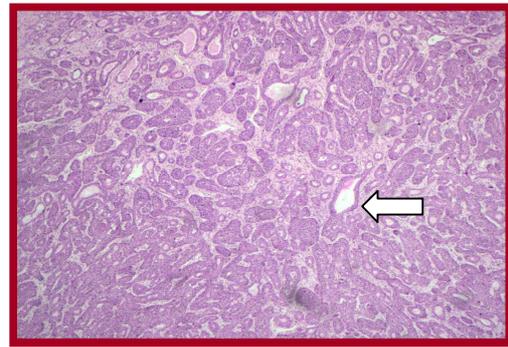


Figure iv H& E, 10X: Tumour cells arranged in nests, follicles & trabecular pattern showing features of insular carcinoma

On microscopy, tumour mass is composed of spindle to epithelioid cells arranged diffusely and at places fascicular pattern. Individual tumour cells are large, pleomorphic, spindle shaped with coarse chromatin and moderate amount of eosinophilic cytoplasm. Tumour giant cells are also seen along with atypical mitotic figures. However, there is no area of necrosis or hemorrhage. At places islands of small monomorphic tumor cells are also seen. (figure i, ii, iii& iv)

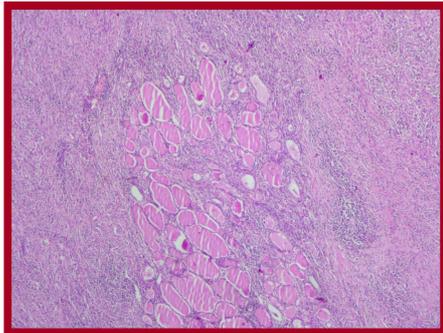


Figure i H & E, 10X; Tumour cells seen entrapping normal thyroid follicles.

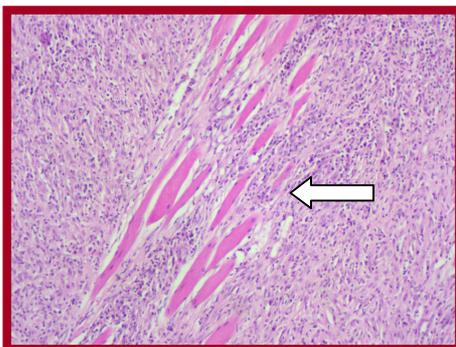


Figure ii H&E, 10X; Tumour cells entrapping surrounding skeletal muscle

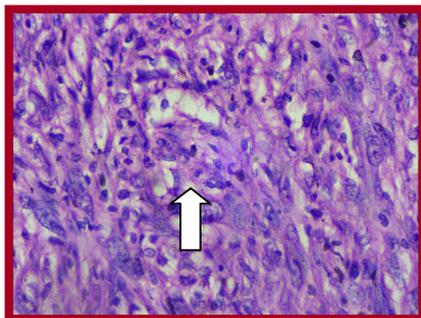


Figure iii H&E, 40X; Pleomorphic Spindle to epithelioid tumour cells admixed with lymphocytes

DISCUSSION

The worldwide annual incidence of thyroid cancer varies from 0.5 to 10 cases per 100,000 people [1]. However, Anaplastic Carcinomas are very uncommon, comprising 2-10% of all thyroid malignancies [1, 2]. Mean age of diagnosis of Anaplastic Carcinoma is 66 years with a female preponderance, F:M ratio being 3.1: 1 [3,4]. Majority of the patient are either euthyroid or presents with a history of rapidly enlarging neck mass [4]. Our patient presented with complains of midline neck swelling since 1 year. Histologically, there are 7 variants of Anaplastic Carcinoma -Spindle cell type, Giant cell type, Squamoid cell type, Angiomatoid type, Carcinosarcoma, Lympho-epithelioma like and Adenosquamous type. Our case displays features of lymphoepithelioma like variant. Carcangui *et al.* characterized a new entity of thyroid carcinoma termed Insular Carcinoma also called as Poorly differentiated Carcinoma in 1984. Histologically, insular carcinoma is characterized by formation of solid islands of small monomorphic tumour cells with aggressive clinical behavior, distant metastasis and death in most instances [3]. Unfortunately, in our case patient presented with cervical metastasis within 3 months of post Right Hemithyroidectomy. Anaplastic cells exhibit marked cytological atypia and high mitotic activity. Tumour necrosis and vascular invasion are common [4]. Tumour cells express positivity for Cytokeratin. Differential diagnosis of Anaplastic carcinoma of thyroid includes Sarcoma, Solid variant of Papillary Carcinoma, Poorly differentiated Carcinoma [1]. No effective treatment protocol for such patients are currently available.

CONCLUSION

Due to the markedly aggressive nature and poor prognosis of the anaplastic carcinoma of thyroid it is very important to diagnose it at the earliest and start the treatment protocol aggressively.

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