

## HURTHLE CELL NEOPLASM, A RARE VARIETY OF FOLLICULAR CANCER OF THYROID - A CASE REPORT

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### ABSTRACT

Hurthle cell thyroid cancer<sup>1</sup> is usually classified as a type of follicular thyroid cancer<sup>2</sup>, making up only about 3% to 5%. Unlike other follicular neoplasm, Hurthle cell cancer can spread into the lymph nodes of the neck and 20% of patients may present with enlarged neck lymph nodes. It typically starts within the thyroid as lump of the thyroid. Here is a case of a middle aged woman with a painless lump in front of neck for 6 months, clinical examination revealed a thyroid neoplasm which on FNAC and histopathological examination showed hurthle cell tumor of thyroid (minimally invasive).

**KEYWORDS :** Hurthle Cell Thyroid Cancer, Follicular Neoplasm

### INTRODUCTION

HCC was first described by Ewing in 1928; it represents only 3% of all thyroid cancers and is currently classified as a variant of follicular carcinoma according to the World Health Organization. Hurthle cell carcinoma (HCC) can present either as a minimally invasive or as a widely invasive tumor. HCC generally has a more aggressive clinical behaviour compared with the other differentiated thyroid cancers, and it is associated with a higher rate of distant metastases.

Average age of patients presenting with HCC is 55 years. Minimally invasive HCC demonstrates much less aggressive behaviour; lesions <4 cm can be treated with thyroid lobectomy alone. For tumors more than 4 cm in size showing lymph node involvement, radioactive iodine therapy is required. The diagnosis is purely histopathological as it is a variant of follicular neoplasm of thyroid and without biopsy, presence of hurthle cells and capsular invasion cannot be demonstrated. Hurthle cells are large, polygonal cells with marked eosinophilic, granular cytoplasm reflective of overly abundant mitochondria.

### CASE REPORT

A 54 year old female presented with complains of a painless swelling in right side of neck for the past 6 months (fig 1 and fig 2). There is no history of trauma, night sweats, lethargy, palpitations and no recent loss of weight over past 6 months.



Fig 1

Fig 2

On clinical examination swelling was identified as a solitary thyroid nodule without involvement of neck lymph nodes. Patient was euthyroid both clinically and biochemically. Ultrasonography of neck suggested multinodular goitre with largest nodule of size 3x4cm on right lobe of thyroid. FNAC suggested it to be a hurthle cell neoplasm.

Total thyroidectomy (fig 3) was performed and the specimen was sent for histopathological examination which revealed moderately differentiated follicular thyroid carcinoma with minimal extra thyroidal extension and angiolymphatic invasion and showing characteristic hurthle cells (fig 4). Post thyroidectomy, patient was started on thyroid supplements (levothyroxine 100mcg/day orally). Patient was counselled for long term follow up.

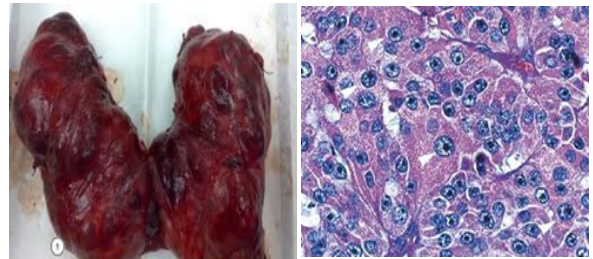


Fig 3

Fig 4

### DISCUSSION

Hurthle cell carcinoma is more aggressive and can spread by lymphatic routes, so it is of utmost importance that all patients are examined for neck lymph nodes. Failure to remove all the nodes can lead to recurrence. Patients have to be followed up routinely after surgery for any recurrence of disease caused due to residual cancer cells in lymph nodes which were not palpable previously. Further, radioactive iodine therapy is reserved for tumors greater than 4cm in size showing extensive capsular and angioinvasion or with positive lymph nodes at the time of surgery.

### REFERENCES

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2. Follicular thyroid cancer, article by Luigi Santacrose, Assistant Professor, Medical School, State University at Bari, Italy