



THE NECK SWELLING – AN UNEXPECTED VISITOR

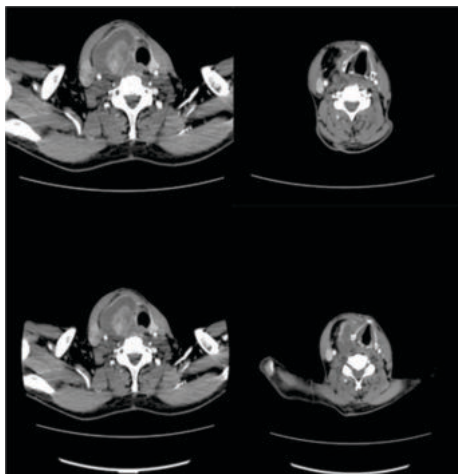
Dr.B. Santhi	Professor, MBBS, MS General Surgery, DGO, Professor and Head of the Department, Department of General Surgery, Government Kilpauk Medical College, Chennai-600010.
Dr. A. Balasubramaniyam	Assistant prof, MBBS, MS General Surgery, Assistant Professor, Department of General Surgery, Government Kilpauk Medical College, Chennai-600010
Dr. Kirthika.R*	MBBS, Postgraduate in General Surgery, Department of General Surgery, Government Kilpauk Medical College, Chennai-600010. *Corresponding Author

ABSTRACT **INTRODUCTION:** Thyroid lipomatosis is an inquisitive rare entity whose etiology is unknown. Investigations such as USG, CT, MRI can detect the presence of macroscopic fat in the thyroid gland . Confirmation using fine needle non-aspiration cytology(FNNAC). Only 9 cases of papillary carcinoma associated with lipomatosis of thyroid are reported so far.

KEYWORDS : Thyroid lipomatosis , papillary carcinoma thyroid

CASE REPORT

A 68 year old gentleman came with complaints of swelling in front of neck for past 1 year with rapid increase in size for past 1 month. Patient had no obstructive symptoms and no voice changes, no complains of loss of weight or loss of appetite. He had no h/o of hyper/hypothyroidism symptoms. On examination, a hemispherical, firm, non-tender swelling (8x 6x7cm) which moves with deglutition was present to the right of thyroid notch, displacing the right sternocleidomastoid and carotid.



USG neck showed lesion suggestive of TIRADS v . CECT Neck showed a solid cystic lesion in right lobe of thyroid(5.5x6.9x12.9cm) with tracheal deviation and ill-defined fatty density present on right lobe, with no retrosternal extension or nodal involvement . •FNNAC revealed Papillary carcinoma Bethesda VI, and lipoma from the two lesions. •Clinically and radiological staging T3aNOMO.



Total thyroidectomy with central compartment nodal dissection was performed. Post-operative events were unremarkable. Patient was started on suppression dose of Thyroxine and underwent radio iodine uptake study showing no remanent malignant tissue . Post-op HPE revealed papillary carcinoma with 1cm margin clearance, and mature adipose tissue with reactive nodes.

DISCUSSION

Thyroid lipomatosis is a rare, benign disease characterized by diffuse infiltration of the stroma by mature adipose tissue. (1) While some theories attempt to explain this disease's pathophysiology – such as through embryological origin of the adipose tissue, adipose metaplasia in response to hypoxia, or senile involution – the etiology of thyroid lipomatosis is not entirely clear. Imaging studies such as ultrasound, CT scan, and MRI may suggest the presence of adipose tissue in the gland, but a definitive diagnosis is confirmed by pathological study of the surgical specimen. This disease does not show gender predominance and while it affects mostly middle-aged patients (mean age at diagnosis: 44 years), it encompasses patients with a wide range of ages .In normal thyroids, adipose tissue is distributed under the capsule and along vessels.

Fat-containing lesions of the thyroid are seen as lesions containing macroscopic mature fat or lesions rich in microscopic intracellular fat vacuoles, or lesions that are referred to as clear cell or lipid-rich neoplasms "(3). Clear cell changes can occur in thyroid neoplasms of various microscopic types and as a consequence of a variety of mechanisms, which include cytoplasmic vesicles (of mitochondrial, reticulum endoplasmic, or Golgi origin) and accumulation of glycogen, lipid, thyroglobulin or mucin(4).

Thyroid lipomas are characterized by the presence of a capsule, which is absent in diffuse thyroid lipomatosis and is the main differentiating feature(5).

CONCLUSION

The presence of mature adipose tissue in thyroid is rare, much rarer are mass lesions containing both fat and thyroid tissues surrounded by a fibrous capsule with very few diagnostic possibilities causing confusion in differential diagnosis. Most of these lesions are benign, except liposarcoma and encapsulated papillary carcinoma. Therefore, thyroid lipomatosis should be kept in mind as a differential. Further follow-up is definitely warranted in cases of lipomatosis of thyroid gland because of its unknown natural history and association with tumorous and non-tumorous lesions.

REFERENCES

1. HYPERLINK "<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4870724/>" "Endocrinol Diabetes Metab Case Rep. 2016; 2016: 160007. Published online 2016 Mar 30. doi: HYPERLINK "<https://dx.doi.org/10.1530%2FEDM-16-0007>" "\t " _blank"10.1530/EDM-16-0007
2. LiVolsi VA. Unusual tumors and tumor-like conditions of the thyroid. In: Surgical Pathology of the Thyroid. Major Problems in Pathology Series, vol. 22. Ch 15, pp. 323-350. Ed. LiVolsi VA, Philadelphia: WB Saunders, 1990.
3. Rosai & Ackerman's Thyroid Gland Surgical Pathology 10th edn, Ch 9, p. 519, Elsevier 2011.
4. Sanuvada RV, Chowhan AK, Rukmangadha N, Patnayak R, Yootla M & Amancharla LY. 2014. Thyrolipomatosis: an inquisitive rare entity. Gland Surgery 3 6-9. [HYPERLINK "<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4244505/>" "PMC free article] [HYPERLINK "<https://www.ncbi.nlm.nih.gov/pubmed/25493264>" "PubMed] [HYPERLINK "https://scholar.google.com/scholar_lookup?journal=Gland+Surgery&title=Thyrolipomatosis:+an+inquisitive+rare+entity&volume=3&publication_year=2014&pages=6-9&" "\t " _blank"Google Scholar]
5. Arslan A, Alic B, Uzunlara AK, Buyukbayrama H & San I. 1999. Diffuse lipomatosis of thyroid gland. Auris, Nasus, Larynx 26 213-215. 10.1016/S0385-8146(98)00049-2 [HYPERLINK "<https://www.ncbi.nlm.nih.gov/pubmed/10214903>" "PubMed] [HYPERLINK "[https://dx.doi.org/10.1016%2FS0385-8146\(98\)00049-2](https://dx.doi.org/10.1016%2FS0385-8146(98)00049-2)" "\t " _blank" CrossRef] [HYPERLINK "[https://scholar.google.com/scholar_lookup?journal=Auris,+Nasus,+Larynx&title=Diffuse+lipomatosis+of+thyroid+gland&volume=26&publication_year=1999&pages=213-215&pmid=10214903&doi=10.1016/S0385-8146\(98\)00049-2&](https://scholar.google.com/scholar_lookup?journal=Auris,+Nasus,+Larynx&title=Diffuse+lipomatosis+of+thyroid+gland&volume=26&publication_year=1999&pages=213-215&pmid=10214903&doi=10.1016/S0385-8146(98)00049-2&)" "\t " _blank"Google Scholar]