ORIGINAL RESEARCH PAPER
Volume - 12 | Issue - 01 | January - 2023 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A BIZARRE CASE OF MYIASIS OF NECK – ATYPICAL PRESENTATION OF THYROID MALIGNANCY

General Surgery

Dr Risha Shetty* Junior Resident, Department of General Surgery, BGS GIMS, Bengaluru. *Corresponding Author

Dr Madan. M Professor and Head, Department of General Surgery, BGS GIMS, Bengaluru.

ABSTRACT

Over 80% to 90% of thyroid tumours are papillary thyroid carcinoma, the most prevalent well-differentiated thyroid cancer. It carries favourable prognosis which is well documented. Due to delayed consultation and, thus, late detection, rarely cases of papillary thyroid carcinoma may present with large growth, creating difficulties for decisive care, quality of life, overall survival, and prognosis. We report a case of a 51-year-old who presented with 4-year history of neck mass and 2-year history bleeding ulcer over the swelling. On examination, the ulcer had maggots and cytological study confirmed Papillary thyroid carcinoma. After pre-operative optimisation, patient underwent Total thyroidectomy with central neck dissection followed by radioactive iodine ablation 4 weeks later. Patient was on regular follow up for 1 year and reported no complaints.

KEYWORDS

Thyroid carcinoma, papillary, fungating, maggots, myiasis

BACKGROUND:

The most frequently encountered thyroid malignancy in surgical practice is papillary thyroid carcinoma (PTC). PTC is frequently multifocal and metastatic lymph nodes are seen in roughly 40% of patients. Rarely, PTC can spread to other organs, most often the lungs, liver, bones, and brain. 0.6–10.4% of all cancer patients develop cutaneous metastases, which account for 2% of all skin tumours. Since papillary thyroid carcinoma is a slow-growing tumour, diagnosis is often delayed. The risk of metastasis and recurrence is decreased by appropriate early surgical therapy.[1] Overall prognosis is favourable thanks to advancements in imaging-based screening and ultrasound-guided fine-needle aspiration biopsy, which have enabled early detection and surgery followed by adjuvant radioactive iodine therapy.[2] We report the management of a very rare case of neglected papillary carcinoma thyroid presenting with extrathyroidal cutaneous fungating mass infected with maggots.

Case Report:

A 51-year-old lady with presented with history of a neck mass for 4 years and a discharging ulcer over the swelling for the past 2 years. She was diagnosed to have hyperthyroidism 2 years ago and started on Tab Carbimazole 10mg thrice daily. She had no other significant medical and surgical history. On examination, patient had a midline neck swelling in the region of the thyroid, left lobe larger than the right lobe. The swelling has variable consistency with left lobe being predominantly hard interspersed with cystic regions. A 3 x 3 cm ulcer was seen in the lower part of the swelling with live maggots and foul-smelling serosanguinous discharge. The swelling showed no movement with deglutition and skin fixity was noted around the ulcer.

A computed tomography of the neck showed an enlarged thyroid gland with solid and cystic components infiltrating the strap muscles and skin. Routine blood panel showed a TSH of 8.5IU/dL with normal T3, T4 levels and a haemoglobin level of 8g/dL which was corrected. Vocal cords were evaluated by videolaryngoscopy and bilateral cords were mobile.

After pre-anaesthestic evaluation and pre- operative optimisation, patient underwent total thyroidectomy with central neck dissection under general anaesthesia. Kocher's incision was modified to exclude the ulcer and subplatysmal flaps were raised. Intra-operatively, the left lobe was found to be densely adherent to the overlying strap muscles, thyroid cartilage, trachea and left internal jugular vein. Left IJV was ligated, and the left lobe was dissected away along with strap muscles. A conglomerate of the gland, lymph nodes and part of strap muscles was delivered out and sent for histopathology. A 12F suction drain was placed, subcutaneous layer was closed with absorbable sutures and skin closed with staples. Post-operative period was uneventful. Drains were removed on post-operative day 2 and patient was discharged on POD5.Histopathology of surgical specimen was reported as Papillary carcinoma of thyroid, pathological stage (T4a Nx Mx) with lymphovascular invasion. Patient underwent Radioiodine Ablation after 4 weeks.

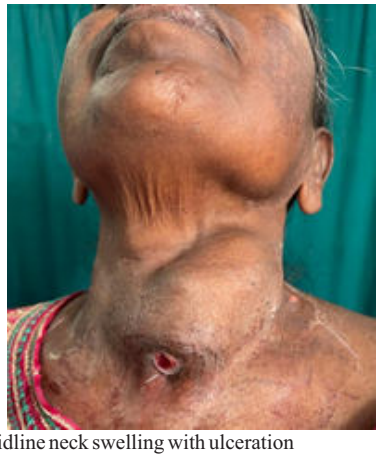

Image 1: Midline neck swelling with ulceration

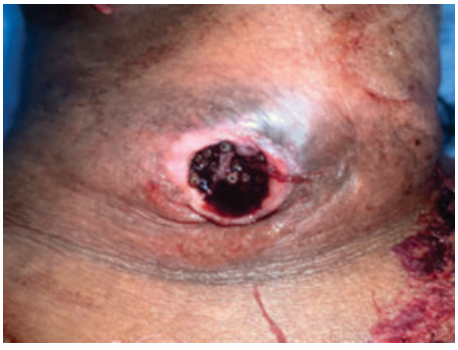

Image 2: Ulcer over the swelling with live maggots

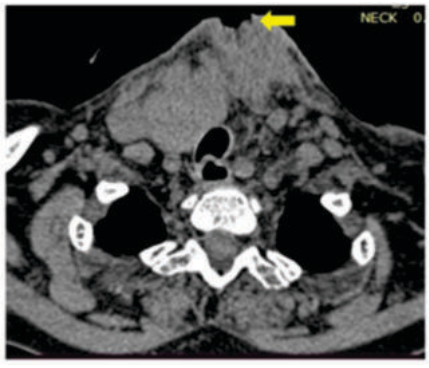

Image 3: CT neck showing enlarged thyroid gland with skin invasion. **(Arrow)**

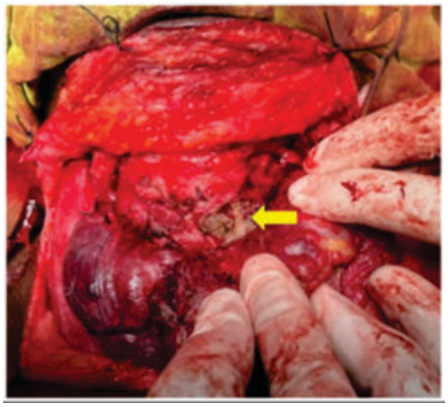

Image 4: Left lobe of thyroid adherent to underlying thyroid cartilage. **(Arrow)**

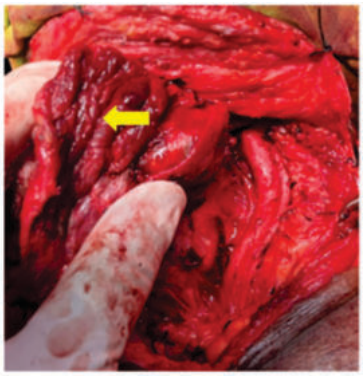

Image 5: Left lobe invading the strap muscles. **(Arrow)**

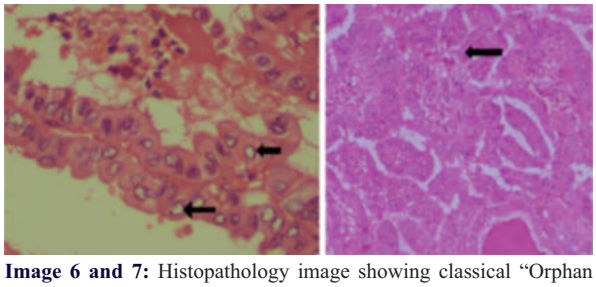

Image 6 and 7: Histopathology image showing classical "Orphan Annie eye nucleus**" (Left, black arrows)**; 10x image of branching papillae typical of papillary thyroid carcinoma **(Right, black arrow)**

DISCUSSION:

Papillary thyroid carcinoma is the most common malignancy of thyroid gland. With a 5-year survival rate of more than 97%, it has excellent prognosis.[3] In 4 to 16 percent of patients, extrathyroidal extension is seen which increases the risk of recurrence and lowers overall survival rates. The trachea, oesophagus, recurrent laryngeal nerve, strap muscles, and skin are all invaded by extrathyroidal extension. Cutaneous metastases due to thyroid malignancy is rare, but it is common in disseminated neoplastic disease.[4] 43 cases of thyroid cancer with skin metastases were discovered when Dahl et al. explored the English literature from 1964 onwards. They discovered that 41% of skin metastases from thyroid malignancy was due to papillary thyroid carcinoma, with follicular carcinoma coming in second at 28% and anaplastic carcinoma and medullary carcinoma each accounting for 15% of cases. The most often affected area was the scalp.[4]

It is unusual for a thyroid cancer to present as a cutaneous extrathyroidal mass that is infested with maggots. These incidences have been noted in follicular and anaplastic thyroid cancer. In 11 patients of thyroid cancer with cutaneous fungal lesions, reported by Nabawi AS et al, the final diagnosis revealed well differentiated thyroid carcinoma in 3, poorly differentiated thyroid carcinoma in 5, anaplastic cancer in 2, and medullary thyroid cancer in 5.[4] In our patient, a papillary thyroid cancer was diagnosed as an extrathyroidal mass that was infected with maggots. Jitesh et al. reported a similar case in India.[1] Patient was subjected to surgery after a week of parenteral antibiotics and manual removal of maggots with local application of turpentine oil.

Although relatively uncommon, large fungating thyroidal tumours pose a significant challenge to surgeons. These enormous masses frequently surround or may even include a number of vital anatomical structures. Therefore, it is imperative to do a full work-up and assessment of the pertinent anatomy and pathology before considering surgery. Excluding anaplastic thyroid cancer by preoperative diagnostic evaluation is crucial because it has a poor prognosis and outcome. Papillary thyroid carcinoma has a good prognosis even when the skin is involved. The standard treatment for PTC with extrathyroidal extension involves a total thyroidectomy, full resection of the cutaneous mass, removal of the relevant tissues, including the cervical lymph nodes, followed by radioiodine ablation. It was recommended that aggressive resection be used to treat locally invasive, differentiated thyroid cancer by Fujimoto Y et al. after subjecting 18 of 21 elderly patients who had locally invasive papillary thyroid cancer to radical resection.[5] Skin loss may be mostly closed, as in our instance, or it may be necessary to use a flap.[6] Permanent complications like hypoparathyroidism and recurrent laryngeal nerve damage only happen in less than 2% of cases under skilled hands.

REFERENCES:

1. Jiten Singh N, Sudhiranjan TH, Lailyang T, Anita N. Papillary thyroid carcinoma presenting with cutaneous fungating mass complicated with myiasis: a case report. Int J Otorhinolaryngol Head Neck Surg 2015;1:85-7.
2. Henrison C. Chiu H, Larrazabal, Jr. R, Aron R. Sahagun J. Exophytic and Fungating Papillary Thyroid Carcinoma: A Rare and Complex Presentation of a Well-differentiated Malignancy. Acta Medica Philippina. 2021;:1-4.
3. Kaur D. H, Abdullah N. H. Large Fungating Thyroid Cancers: A Unique Surgical Challenge. Asian Journal Of Surgery Vol 28 No 1 January 2005. 2005;28(01):48-51.
4. Nabawi A, Al Wagih H, Hemeida M, Koraitim T, Moussa M, Ezzat T. Fungating Thyroid Cancer: A Complex Clinical Scenario. World Journal of Surgery. 2011;36(3):598-606.
5. Fujimoto Y, Obara T, Ito Y, Kodama T, Yashiro T, Yamashita T, et al. Aggressive surgical approach for locally invasive papillary carcinoma of the thyroid in patients over forty-five years of age. Surgery. 1986 Dec;100(6):1098-107.
6. Nakahira M, Nakatani H, Takeuchi S,Higashiyama, K, Fukushima K. Safe reconstruction of a large cervico-mediastinal tracheal defect with a pectoralis major myocutaneous flap and free costal cartilage grafts. Auris Nasus Larynx. 2006;33:203-6.