

**Case Report: Ascent from the Diffuse Parotid Swelling To Diagnosis of Follicular Carcinoma Thyroid**

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**Type of Publication:** Case Report

**Conflicts of Interest:** Nil

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**Abstract**

**Background:** Thyroid carcinoma sometimes shows a microscopic vascular invasion, but gross angio invasion with intraluminal thrombosis is extremely rare. Very few cases about metastasis of thyroid cancer to the parotid gland have been reported.

**Case report:** A 53 years old lady, presented to ENT OPD with a complaint of swelling in the right parotid region and right side of neck since 2years. Swelling in the right side of neck since 2 years. Swelling in the right parotid region was progressive, initially it was peanut size & increased to present size over a period.

**Conclusion:** This rare case of a thyroid follicular carcinoma presenting as a metastasis in the parotid gland serves to highlight the importance of remaining clinically vigilant to the possibility that a salivary gland lesion may be a metastasis from another site.

**Keywords:** Carcinoma Thyroid, Parotid Swelling.

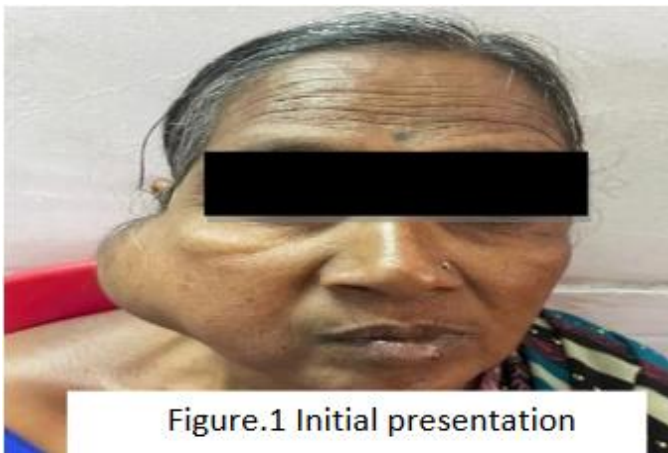
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**Introduction**

Thyroid carcinoma sometimes shows a microscopic vascular invasion, but gross angio invasion with intraluminal thrombosis is extremely rare. Very few cases about metastasis of thyroid cancer to the parotid gland have been reported.

**Case Presentation**

A 53yr old lady, presented to ENT OPD with chief complaints of swelling in the right parotid region & right side of neck since 2 years. A void swelling present over the right parotid region which measured horizontal around 6x4cm & vertical around 6.5cm extending from right tragus to the angle of mandible & going below the ear lobe. Margins were regular, surface over the swelling was regular & even, skin over the swelling appeared normal. On palpation inspectory findings were confirmed, & swelling was firm in consistency. On percussion dull note heard.



### Investigation

Patient was subjected for contrast enhanced computed tomography of the neck showed a large expansile lytic lesion arising from the right hemi-mandible with hyper enhancing soft tissue and necrotic cores within. Infratemporal and temporo mandibular intra-articular extension of the lesion was observed with mass effect upon the right maxillary sinus and right pterygoid plates. Smaller lytic lesions were seen involving the left calvarium and the left sided posterior elements of C4 vertebra. Infrathyoid sections of the neck showed a peripherally calcified nodule arising from the right lobe of thyroid gland. Enhancement pattern was to that of the mandibular lytic lesion. The lesion exerted significant mass effect causing compression of the trachea.

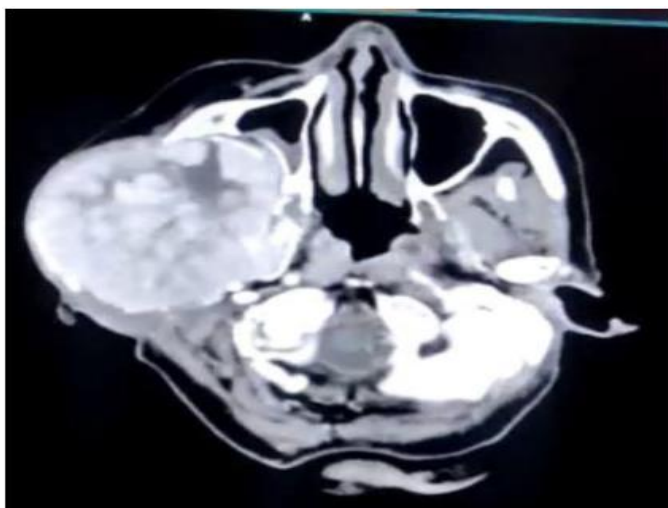


Figure.2: Axial contrast

### Figure Description

1. Axial contrast enhanced sections (Fig 2A,2B) of the suprahyoid neck show a large expansile lytic lesion arising from the right hemimandible with hyperenhancing soft tissue and necrotic cores within. Infratemporal and temporomandibular intra-articular extension is noted with mass effect upon the right maxillary sinus and right pterygoid plates.
2. Cranial (Fig 3A) and caudal (Fig 3B) sections reveal smaller lytic lesions involving the left calvarium and the left sided posterior elements of C4 vertebra respectively.
3. Axial contrast enhanced section (Fig 4) of the infrahyoid neck shows a peripherally calcified enhancing nodule arising from the right lobe of thyroid gland. Enhancement pattern is observed to be similar that of the mandibular lytic lesion. Associated significant compression of the trachea is noted.
4. Patient was also subjected to FNAC of right thyroid gland which showed uniform follicular epithelial cells arranged in macro & Micro follicular pattern, TRU CUT biopsy (Fig.5) showed Metastatic deposits from follicular carcinoma of thyroid.



Fig. 2A



Fig. 2B

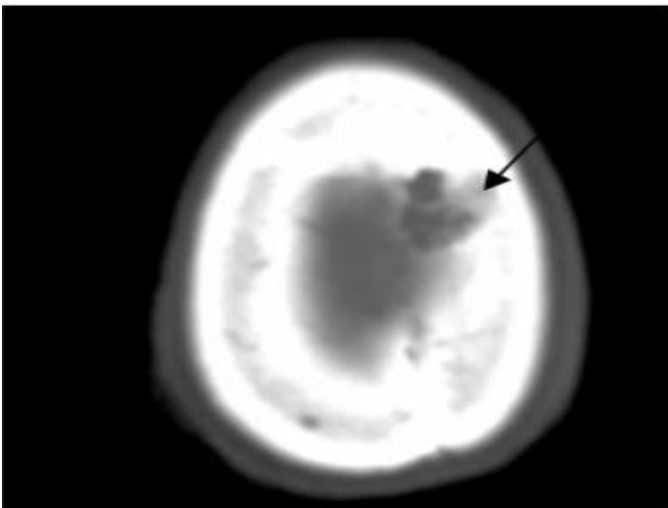


Fig. 3A



Fig. 3B

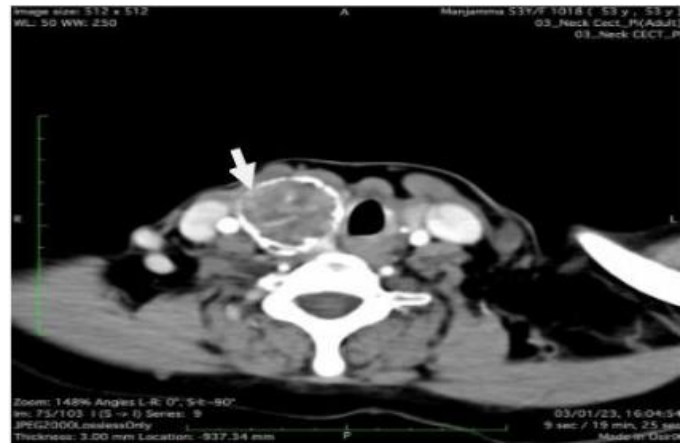


Figure 4

### Discussion

The primary management of an advanced disease with vascular invasion would be radical surgery to remove a macroscopic disease.



Figure 5: TRU CUT biopsy.

1. This patient total thyroidectomy with neck dissection with right mandibulectomy was done, followed by high dose radioiodine ablative therapy.
2. Involvement of the parotid gland by invasion from Malignant tumours in the head & neck is uncommon.
3. More common for the parotid gland to be involved an incidental part of a generalized metastatic disease rather than a site of isolated metastasis.
4. Clinically & pathologically, secondary spread to the parotid Manifests itself as a as a primary salivary gland tumour that may mislead clinician, radiologist & pathologists.

## **Conclusion**

The necessity of communication between clinicians, histopathologists and radiologists is also well illustrated by this case. This very rare presentation of thyroid follicular carcinoma could easily have been reported incorrectly as benign thyroid follicular cells if there was poor communication and the reporting pathologist was not made aware that initial aspirate was from the parotid gland & not from the thyroid gland.

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