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# Neck Swelling with Petite History and Austere Presentation: Infective or Metastatic???

## Dr. Sphoorthi Basavannaiah

Assistant Professor, Department of ENT, Subbaiah Institute of Medical Sciences NH-13, Purle, Holebenavalli Post, Shimoga-577222, Karnataka, India.

sphoorthi86@rediffmail.com

\*Corresponding Author: Dr. Sphoorthi Basavannaiah M.S (ENT), Assistant Professor, Department of ENT, Subbaiah Institute Of Medical Sciences NH-13, Purle, Holebenavalli Post, Shimoga-577222, Karnataka, India.

#### **Abstract**

Neck swellings have become one of the most common swelling in the ENT OPD. It ranges from congenital mass to cancerous growth with varied symptomatology from dysphagia to dyspnoea. Careful history should be obtained, thorough physical examination should be performed and keeping the differentials in mind, necessary cytological and radiological investigations must be acquired. Certain factors have to be considered during history: patient's age, location, size, and duration of the swellingas these are important pieces of information. Inflammatory/infectious causes of neck masses are common in young adults whileNeoplasms are more likely in older adults. Congenital masses dwindle between the two extremes. Panendoscopy and possible excisional biopsy should be obtained whenever a neck mass persists beyond four to six weeks which in a way completes the diagnostic protocols.

#### **CASE REPORT**

37 year old female patient comes to ENT OPD with swelling in the left lateral aspect of the neck since 1 week (**Figure 1**). She g/h/o swelling which was initially pea sized for around 1 month to have attained the present size. Along with the swelling, she also

complained of trismus (**Figure 2**) and pain over the swelling with on and off fever. There was no h/o dysphagia, odynophagia, change of voice, dyspnoea, loss of weight, loss of appetite, cough with expect oration and evening rise of temperature. She gives no h/o any habits or any other systemic illness. Patient was well oriented with mildly raised temperature.



Figure 1



Figure 2

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Clinically, oval swelling measuring around 4X4cm in the left lateral aspect of the neck with severe induration all around the swelling, extending superiorly upto left parotid gland, inferiorly unable to make out the extent of the swelling, medially almost nearing the midline and laterally upto left sternocleidomastoid muscle, firm to hard in consistency, tender, with ill-defined margins and borders and regular surface with signs of inflammation and unable to make out status of cervical lymph nodes on the left side. Patient was having Grade III trismus with no abnormality detected in the oral cavity and on laryngeal examination. Following clinical examination, the diagnosis seemed like malignancy of unknown origin, but the history was not holding good with the findings, hence the diagnosis was inferred as Left cervical lymphadenitis with abscess.

Then, USG neckwas done which showed 4X3 cm ill-defined, complex, heterogenous lesion with septations/solid components and no calcifications. It also showed minimal peripheral color uptake and extensive perilesional fat stranding and small sized non-necrotic lymph nodes with the largest measuring 9X4 mm in size in the left side of the neck with its extent upto left parotid gland which was enlarged along with bulky, inflamed left submandibular gland. FNAC of the left cervical swelling inferred as suppurative lesion with no evidence of granuloma. Patient was admitted and started on systemic broad spectrum antibiotics.

CECT Neck **(Figure 5, 6)** was done which showed 10X7X6 cms well defined peripherally enhancing thick

walled hypodense lesion with internal non-enhancing hypo-attenuation suggesting necrosis in the anterior triangle of the neck on left side. This lesion is seen extending superiorly upto inferior pole of left parotid gland, inferiorly upto level of C4, medially compressing the carotid sheath (containing the carotid vessels and internal jugular vein) towards midline and laterally limited to the left sternocleidomastoid muscle inferring it as an abscess formation.

Under antibiotic coverage, trismus improved slightly and patient was posted for Incision and Drainage of the abscess under General anaesthesia (Figure 3, 4) after the necessary work-up done. Incision given 2 finger breadth below angle of mandible, at the most prominent and dependent part of the abscess. Nearly 100ml of thick pus was drained out and sent for pus culture sensitivity. Cavity washed with dilute hydrogen peroxide and betadine solution and later packed with ribbon gauze soaked in betadine. Intraoperative and postoperative period were uneventful. Systemic antibiotics was continued for another week and daily dressing of the cavity was done until self- closure of the wound takes place. Patient wasdoing well and discharged with oral medications. Pus culture sensitivity report showed no pathogens isolated.On follow-up, patient was doing fine and wound seemed healthy with incision merged with the neck crease with minimal induration noted around the incision site.



Figure 3



Figure 4

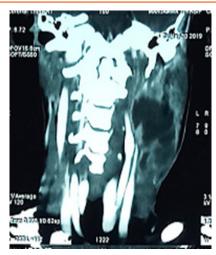


Figure 5

#### DISCUSSION

Neck swellings, now-a-days are one of the common presentation in all age groups. The differential diagnosis of a neck mass is extensive. It ranges from congenital to acquired, from inflammatory origin to neoplastic disease, may or may notencompass any neck structures. In the community set up, it is the inflammatory lymphoid swelling as the most common encounter, whereas in hospital scenario, it is thyroid swelling or goitre that is most frequently seen. It behoves to all surgeons to understand the embryology and anatomy to aid with making the correct diagnosis thus allowing for appropriate management algorithm (1,4). Knowledge of patient's age, associated symptoms and anatomical location of the lump are the key factors to proceed to treatment or is an indication for further investigations including imaging and surgery. Neck swellings in adults > 40 years should be considered malignant or at least have malignancy excluded by examination of the mucosal surfaces of the head and neck region along with other cytological and radiological investigations that aid to the diagnosis (2,5).

The evaluation of a neck mass is a common clinical catch which both surgeons and clinicians routinely encounter. Neck swellings arise from a diverse range of tissues and lead to assorted pathological disorders. Common clinical swellings in neck are lymphoid swellings, salivary gland enlargement, thyroid swellings, thyroglossal cysts, branchial cysts, dermoid, lipoma, vascular and lymphatic malformations, laryngocoele, scahwannoma, metastatic secondaries



Figure 6

in the neck. They usually result from embryonic structures that have failed to mature or have persisted in an aberrant fashion (3,6).

The approach to diagnosis relies on a thorough history and an appropriate examination to exclude an occult primary malignancy. The typical feature of fluctuancy is not elicited most of the times because the contents of cyst may be under tension. USG guided FNAC of the swelling is the preferred mode of choice initially following which CT and MRI are done in some cases wherever needed. Clinical presentation, anatomical location and extent of the swelling, its internal composition and vascularity as seen on Doppler USG and contrast CT that are helpful in accurate interpretation of the swellings. Definitive treatment is usually surgical excision. Complete excision is advocated to avoid complications of infection, which will make resection more difficult and recurrence more likely. No intervention can be an option if there is significant co-morbidity, absence of functional or cosmetic impairment or there is reluctance by the patient to undergo surgery (2,4,6).

### **CONCLUSION**

Each type of neck swelling has a unique location in the neck and is highly associated with its embryonic origin. Hence, complete and precise clinical information is a prerequisite in order to make accurate diagnosis of the neck swelling. Malignancy should definitely be kept in mind, as not all neck swellings are malignant until proved otherwise. Like in this case, first glance made it look like metastatic due to its severity of presentation plus also considering the patient to be

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negligent regarding the duration of the swelling. But, with the aid of investigations the mindset of neoplastic gradually changed to inflammatory. Hence, the clinical catch was sorted by the diagnostic scrutiny.

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