

Neck & Thyroid swellings

PRESENTED BY
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Neck & Thyroid swellings

Introduction: Greet the patient, introduce yourself, explain what you plan to do, & take Patient ID	
Age	<ul style="list-style-type: none"> Pedia <16 → inflammatory Elderly → neoplasm Occupation: Radiation in medical/military workers
Site	<ul style="list-style-type: none"> Unilateral or bilateral? Anterior triangle of the neck or posterior triangle of the neck?
Onset, duration, timing	<ul style="list-style-type: none"> When did you notice it? <ul style="list-style-type: none"> Rule of 7's: a mass that has been around: <ul style="list-style-type: none"> 7 days → inflammatory. 7 months → malignant. 7 years → congenital and benign. How did you notice it? Suddenly or gradually? How long did it last? Constant or intermittent? (How many times if intermittent/timing)? How has it changed with time? Progressive or regressive Ever had something like this before?
Character	<ul style="list-style-type: none"> Is this your first time experiencing this? Single swelling or multiple swellings? Size? Shape of the swelling? Regular or irregular Painful or painless? Fixed? mobile? Itchy? Warm? Discharge? Blood? Throbbing or pulsatile? What is the color of the swelling?
Radiation	<ul style="list-style-type: none"> Did the swelling spread to anywhere else? Such as head or underarm
Alleviating & Exacerbating F	<ul style="list-style-type: none"> Is there anything that relieves it or makes it worse?
Severity	<ul style="list-style-type: none"> How has this affected your daily life? Does it wake you up from sleep? If there's pain → scale 1-10
Associated symptoms & Risk factors	<ul style="list-style-type: none"> Any exposure to radiation? Compressive symptoms → Difficulty in swallowing? Difficulty in breathing? Hoarseness? Heat Intolerance, Diarrhea, Palpitations, ocular prominence (<i>exophthalmos</i>)? (Hyperthyroidism) Cold Intolerance, Constipation, Dry Skin? (Hypothyroidism) Recent URTI or any infection? (Thyroiditis) Bone pain? History of flank pain/stone? Depression? (Hyperparathyroidism) History of malignancies? Thyroid and Parathyroid Cancers? Any history of malignancies in the family? (Medullary Thyroid Cancer)
Constitutional Symptoms	<ul style="list-style-type: none"> Nausea? Vomiting? Night sweats? Weight loss? Loss of Appetite? Fever? Fatigue? (Infection, lymphadenopathy, Neoplasm)
Finishing & Thank the patient	

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2 Examination

WIPER: wash hands, introduce yourself, permission, expose patient, reposition

Inspection:

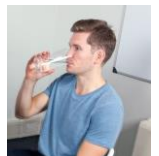
1. General Inspection:

- Fast/slow movements & expressions, nervous & agitated.
- Thin or fat patient.
- Looks at thickness of cloths, sweating, feeling hot or cold.
- Pale or yellow lemon color occur in hypothyroidism.
- Loss of hair (in the outer third of the eyebrows) in hypothyroidism.
- **Hands:** sweating, tremors, clubbing, muscle wasting.
- **Radial Pulse:**
 - Tachycardia (hyperthyroidism), bradycardia (hypothyroidism),
 - Atrial fibrillation (thyrotoxicosis in middle or old age patient).
- **Face:** dry skin, loss of outer third of eyebrow.
- **Eyes:** Inspect for:
 - **From the front:** Lid retraction: The sclera is visible above the iris.
 - **From the front:** Lid lag: by asking the patient to follow your finger as it descends at a moderate rate from the upper to the lower part of the visual field.
 - **From the side and behind:** Exophthalmos a protrusion of the eyeball from the orbit.
 - **H test for eye movement:** (pain or double vision or restriction)
 - **Complications of Exophthalmos:** chemosis, Conjunctivitis, corneal ulceration.



2. Local Inspection:

- Inspect the neck for any skin pigmentation, swellings, scars or abnormalities.
- **Ask the patient to swallow**, if the swelling moves upward → Thyroid problem.
- **Ask the patient to protrude their tongue**, if it moves upward → Thyroglossal duct cyst.
- Cystic lesion with positive transillumination is **Branchial cyst**.
- **Ask patient to raise arm above head**, may see facial congestion and external jugular vein distension; Retrosternal thyroid (**Pemberton's Sign**)



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2 Examination

Palpation: (ask for pain before palpation):

1. From in front of the patient:

- Palpate the trachea and check for **tracheal deviation**.
- Palpate for **tenderness**.
- Check the **temperature**.

2. From behind the patient:

- Begin at the thyroid cartilage (**Adam's apple**) and move downward. Palpate each lobe of the thyroid (by resting one hand and pushing the lobe on the other hand) as well as the isthmus, ask the patient to swallow and protrude their tongue while palpating.
- **Palpate the local lymph nodes** for lymphadenopathy: Submental, submandibular, preauricular, postauricular, occipital, deep cervical, posterior triangle, supraclavicular, infraclavicular.



Palpate both lobes and the isthmus with the fingers flat.



Palpate the neck from behind, with the thumbs pushing the head forwards to flex the neck slightly.



Feel the trachea.



Percussion

- On the sternum to rule out **retrosternal goiter**

Auscultation

- Listen over the **thyroid** for any **bruit or hum**.
- Listen over the **carotid** for any bruits.



Percuss the lower limit of the gland.



Listen over the gland for a systolic bruit.

Station's Name : Cervical L.N

Candidate's name :
Date of examination:
Time of the station : 6 mint

A=complete answer=2
B=Partial answer=1
C=Not attempted =0

Introduction		A	B	C	mark
1	Greeting the patient , Self introduction and Permission				
2	Hand washing				
3	Asking the patient if there is any pain				
4	Positioning and exposure				
Inspection		A	B	C	mark
5	Swelling (site, size, shape, color)				
6	Discharge				
7	scars ,dilated veins				
8	Asking the patient to swallow/ protrude tongue				
9	Mouth examination tongue/ Floor of the mouth/ Tonsils				
Palpation		A	B	C	mark
10	Tenderness/ Temp				
11	Surface /margins				
12	Consistency/ fluctuation				
13	Mobile/ fixed				
14	Solitary or multiple (matted ?)				
15	Thyroid gland anteriorly				
Palpation for Cervical L.N groups (from behind)		A	B	C	mark
16	Exam from behind with head flexion & fixation				
17	Submental & submandibular L.N				
18	Pre & post Auricular L.N				
19	Occipital L.N				
20	Jugular chain				
21	Supraclavicular				
Other lymphoid tissues(mentioned only by candidate)		A	B	C	mark
22	Axilla				
23	Abdomen for HSM				
24	Groin				
Finishing		A	B	C	mark
25	Thanking the patient				

Station's Name : Thyroid Examination

Candidate's name :
Date of examination:
Time of the station : 6 mint

A=complete answer=2
B=Partial answer = 1
C=Not attempted = 0

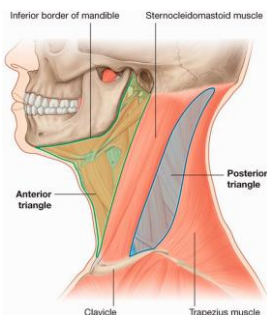
Introduction		A	B	C	mark
1	Greeting the patient , Self introduction and Permission				
2	Hand washing				
3	Asking the patient if there is any pain				
4	Positioning and exposure				
Inspection		A	B	C	mark
5	Lid retraction				
6	Exophthalmos				
7	Swelling , scars ,dilated veins				
8	Asking the patient to swallow				
9	Asking the patient to protrude the tongue				
10	Outstretching the patient hands and finger for tremor				
Palpation		A	B	C	mark
11	patients hand for temp and sweating				
12	Radial pulse				
13	Trachea position (anteriorly)				
14	Thyroid gland anteriorly (confirming the visual swelling and tenderness)				
15	Thyroid gland posteriorly				
16	Cervical lymph nodes				
17	Carotid pulse				
Percussion		A	B	C	mark
18	Clavicle (medial end) & manubrium for retrosternal goiter				
Auscultation		A	B	C	mark
19	Over the upper pole of thyroid gland for bruit				
Special tests		A	B	C	mark
20	Lid lag				
21	Ophthalmoplegia				
22	Arm raising test for retrosternal goiter				
23	Pretibial myxoedema				
24	Reflexes (ankle reflex delayed in hypothyroidism)				
Finishing		A	B	C	mark
25	Thanking the patient				

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3 Theoretical Notes

Neck symptoms:

- A lump in the neck: The majority of thyroid swellings grow slowly and painlessly.
- Discomfort during swallowing: This is not true dysphagia.
- Dyspnea: The whistling sound of air rushing through a narrowed trachea is stridor.
- Pain: occur in thyroiditis, Hashimoto's disease, anaplastic carcinoma.
- Hoarseness: caused by a paralysis of one of the recurrent laryngeal nerves.



- Anterior cervical triangle is limited by the midline anteriorly, the clavicle below, and the sternocleidomastoid muscle. It includes the submental, submandibular, jugular, scalene, and supraclavicular lymph node groups.
- Posterior cervical triangle is limited by midline, sternocleidomastoid, and trapezius muscle. It includes the posterior cervical, post-auricular and the occipital groups.

Notes:

- The anterior group is better examined from behind while the patient is sitting, and the posterior group is examined from the front.
- Examine the scalp if you find enlarged occipital and auricular L.N.
- If the cervical L.N are enlarged, the axillary and inguinal L.N should be examined.
- 80% of enlarged L.N in adult is malignant.
- Biopsy: used in case of solid mass or uncertain diagnosis.
- Use FNA for diagnosis:
 - If you find benign condition then do excisional biopsy.
 - If you find limited malignant condition then do excisional biopsy.
 - If you find extensive malignant condition then do radio or chemotherapy.

Revision panel 11.1

Causes of cervical lymphadenopathy

Infection

Non-specific
Glandular fever
Tuberculosis
Syphilis
Toxoplasmosis
Cat-scratch fever (*Rochalimaea henselae*)

Metastatic tumour

From head, neck, chest and abdomen

Primary reticuloses

Lymphoma
Lymphosarcoma
Reticulosarcoma

Sarcoidosis

Midline swelling	Lateral swelling
Thyroid enlargement	Branchial cyst
Thyroglossal cyst	Cystic hygroma
Peri-tracheal L.N enlargement	Sternocleidomastoid tumor
Single nodule in isthmus	Pharyngeal pouch
Chondroma of thyroid gland	Cervical lymphadenopathy
Sebaceous cyst	Lipofibroma
Thyroid cyst	Carotid body tumor
Mass related to skin	Thyroid enlargement
Dermoid cyst	Dermoid cyst
Lipoma	Sebaceous cyst, lipoma
Subhyoid bursa	Early stage of SCC

Enumerate 4 cystic lesions in the neck ?

1- thyroglossal duct. 2- branchial cyst. 3- pharyngeal pouch. 4- cystic hygroma. 5- cold abscess

3 Theoretical Notes

Mobius sign: Lack of convergence on looking to near object