HISTORY TAKING AND EXAMINATION OF a Lump

For medical Students – 4th year

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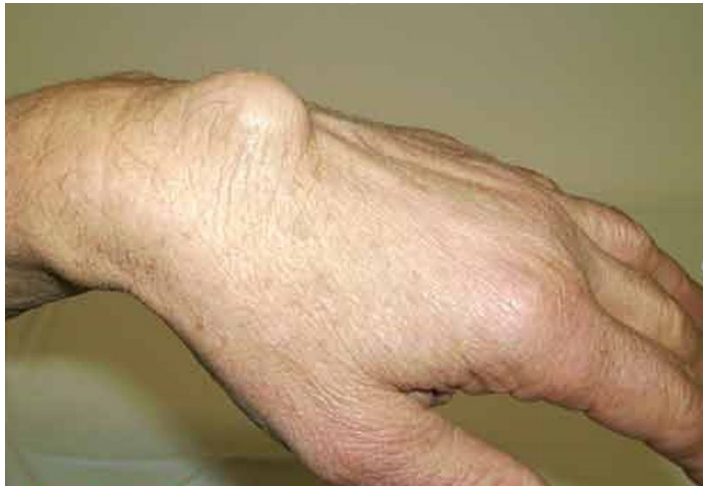
History Taking of a Lump

⟶ ***Introduce yourself/ Ask Permission***



- **Personal History:**
- **Complaint of the patient :**

(patient's own wards & Duration)

- **Definition:** A **Lump** is **a protuberance or localized area of swelling that can occur anywhere on the body**.
- **Other terms : Bump**, **Nodule**, **contusion**, **tumor** and **cyst** or a **Swelling**,..
- **Common Causes:** infections, inflammation, Degeneration, Neoplastic or trauma.

Lump History Taking (cont)

HPI: (analysis of the presenting complaint)

- When did you noticed it ie **Duration …**
- How did you noticed it?, **Onset, Progress,..**
- Is the lump symptomatic/Associating Symptoms? **Pain, pressure, fever,..** H/O **loss of body weight**
- Any change in size since **First noticed**?
- Does the lump ever disappear or reduce in size? Hernia
- Any other lump on the body?
- Any cause? Trauma? Heavy weight lifting,….
- Clinical systematic review
- **(Past History; medical & surgical , Family History, …)**

General examination:

(Adequate exposure)

- General Condition
- Vital signs
- Complexion
- Neck Examination
- Lymph nodes (cervical, axillary,inguinal)
- Lower limbs
- Skin allover the body

Examination of a lump

Inspection:

- Site
- Size
- Shape
- Surface and Colour
- Pulsation
- Cough impulse Any other lump in the area or on the body

Examination of a lump

Palpation:

- Site
- Size
- Shape
- Surface
- Pulsation (true or transmitted):

  (Two finger technique Cough impulse)
- Temperature
- Tenderness
- Consistency: hard, firm, soft, …
- Edge

Examination of a lump

- **Percussion:**

  Dull (solid, fluid) or

  Resonant (gas)

- **Auscultation:**

  Bruit (vascular) , aneurysms,… or

  Bowel sounds(hernia)

Some Techniques of Examination of a lump

- **Fluctuation** for fixed & mobile lump, tested in 2 axis (Positive in cystic swellings)
- **Indentation test**: positive in cystic swellings)
- **Transillumination**
- **Compressibility:** Sustained pressure empties swelling which refills on release of pressure- **hemangioma**
- **Reducibility:** reduced into another space. Does not return spontaneously
- **Attachments-** overlying skin, underlying muscle/bone
- Regional lymph nodes

HOW TO DIAGNOSE A LUMP

STEP1: define its Anatomical Plane;

skin,

S/C tissue,

muscular, … etc ,

its attachments,..

HOW TO DIAGNOSE A LUMP

STEP2: PHYSICAL CHARACHRERISTICS:

Tender or not!!, if not:

- **Size: In cm in different dimensions ;**

  Be careful in comparison to common objects; egg, lemon..)

- **Shape: round;; regular or irregular…**

HOW TO DIAGNOSE A LUMP

CONSISTENCY:

GRADES ARE FIVE:

1. Very soft (jelly)
2. Soft (relaxed m.)
3. Firm (contracted m.)
4. Hard (contracted biceps)
5. Strong or boney hard (bone)

HOW TO DIAGNOSE A LUMP

STEP 3: if uncertain still:

1. **Is it congenital? … No…**
2. **Is it *traumatic* ?.. No…**
3. **Is it inflammatory?... No…**
4. **Is it neoplastic? …(benign – malignant 1or 2 ml)**
5. **Is it degenerative, metabolic, parasitic, hormonal….etc**

Specific Features of a Swelling

- **COMPRESSIBLE SWELLING:**

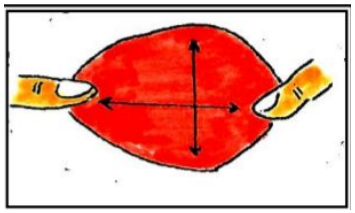
SIGN OF EMPTYING :cavernous haemangioma

CYSTIC SELLINGS :

- **Sign of INDENTATION:** Paget's test: indicated

- Too tender.
- Too tense.
- Too deep.
- Too small <2 cm

- **Sign of Fluctuation**

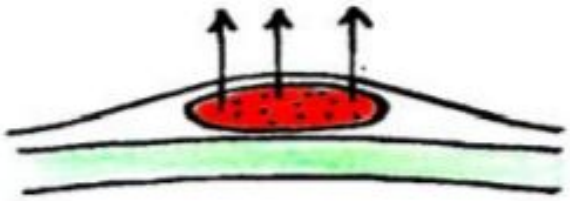


B. **Bipolar fluctuation** e g. in Hydrocele

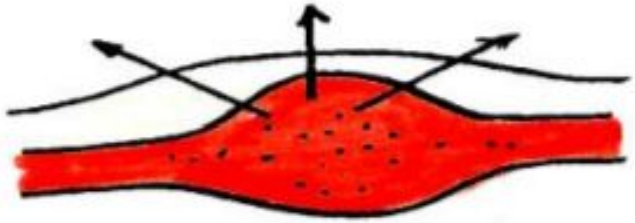
A.**Cross fluctuation**
e.g. Psoas abscess in Rt. iliac fossa with an extension below inguinal ligament in femoral

PULSATION : May be

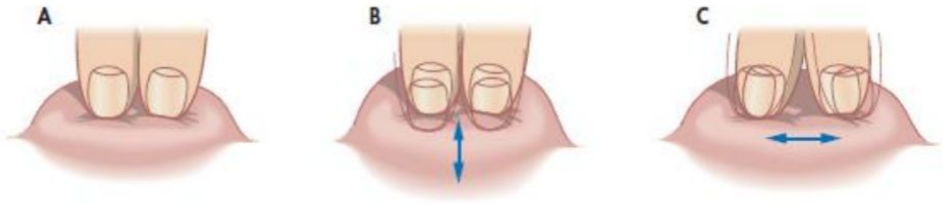
- **Transmitted** pulsation i.e. over artery
- **Expansile** pulsation i.e. Aneurysm



Transmitted Pulsation



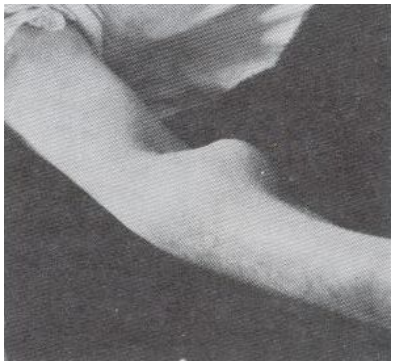
Expansile Pulsation

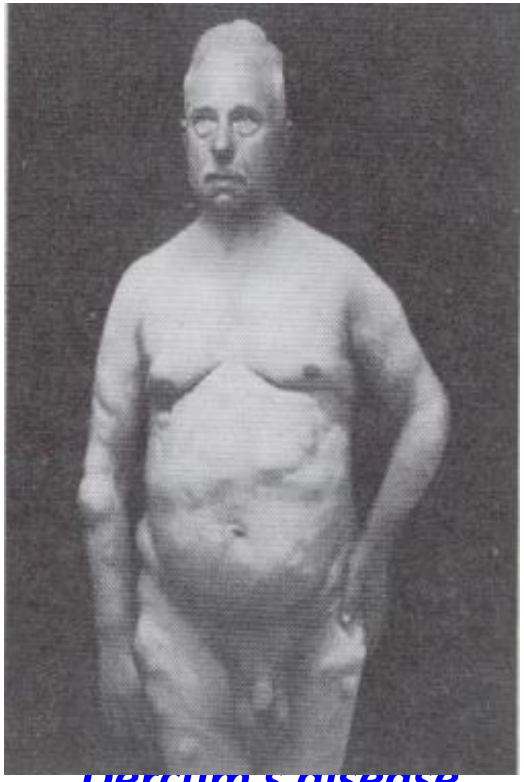


A=no impulse: **B = transmitted** pulsation from a neighbouring artery:
C = expansile impulse, the sign of an **aneurysm** eg **AAA**

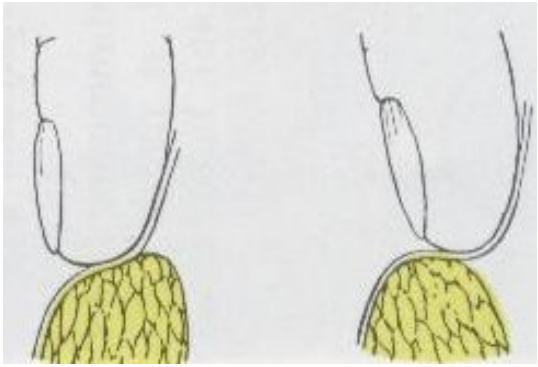
:EXAMPLES

- Sebacious cyst:
- Subcutaneous lipoma:
  - sup. to deep fascia
  - lobulated
  - slipping sign
  - painless





Dercum's disease



- **TUMOUR OF A MUSCLE:**

It moves across m. fibers when relaxed & limitted MVT on contraction

NB: Tumour superficial or deep to muscle;

Ask pt to contract this muscle

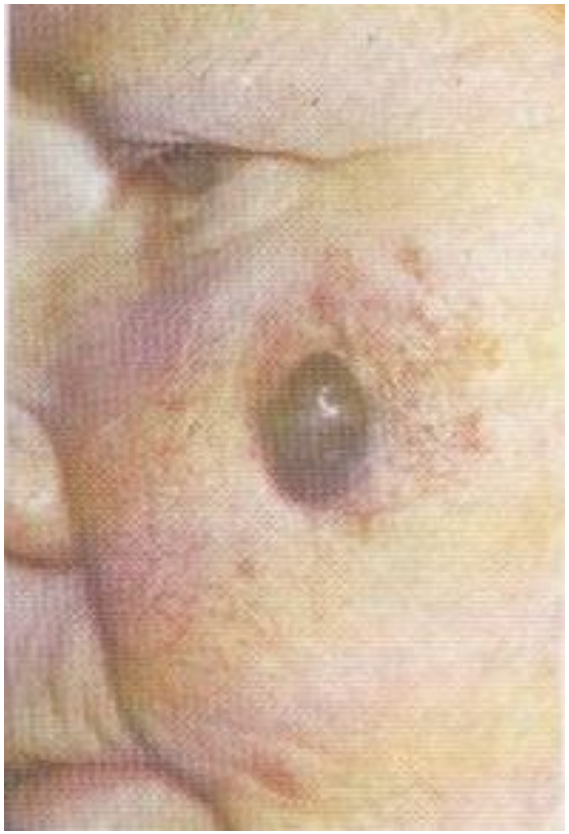
- **MUSCLE HERNIA**

❖ Other not uncommon swellings:

- **Fibrosarcoma**
- **Desmoid tumour**
- **Nerve tumours**
- **Bone tumours**

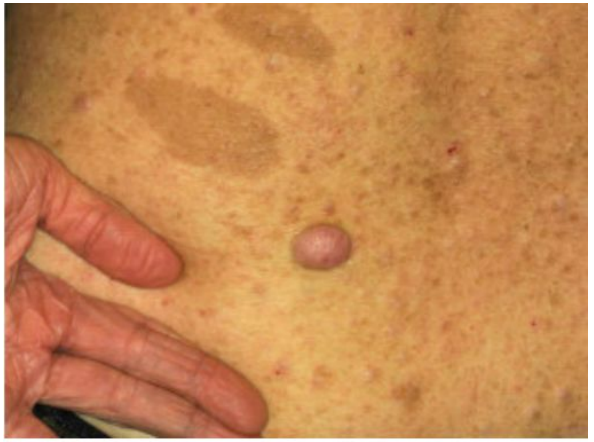
:CUTANEOUS SWELLINGS

- **Molluscum sebacum**
- **Senile hyperkeratosis**
- **Pyogemic grouloma**
- **Kaposi sarcoma (multiple, symptomlss, plum-coloured nodules in lower extremity)**

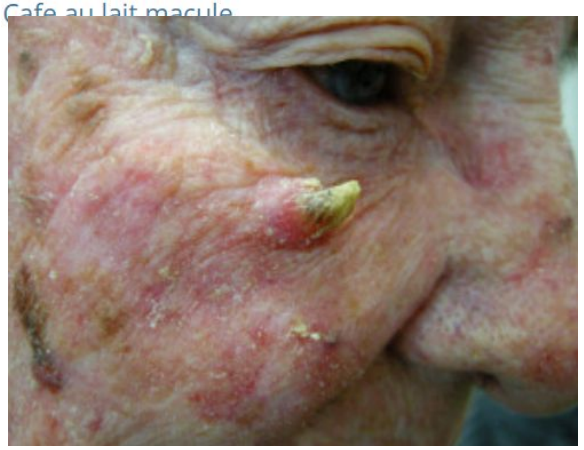


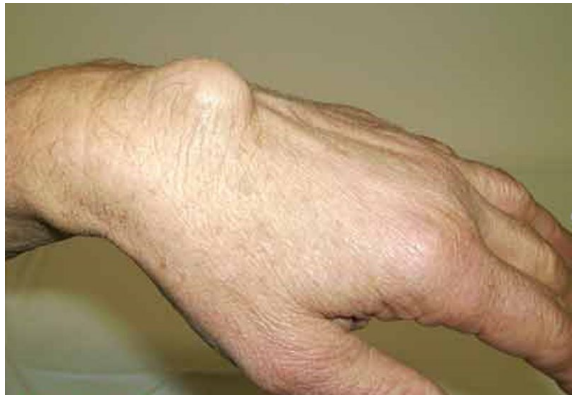
:SPOT DIAGNOSIS

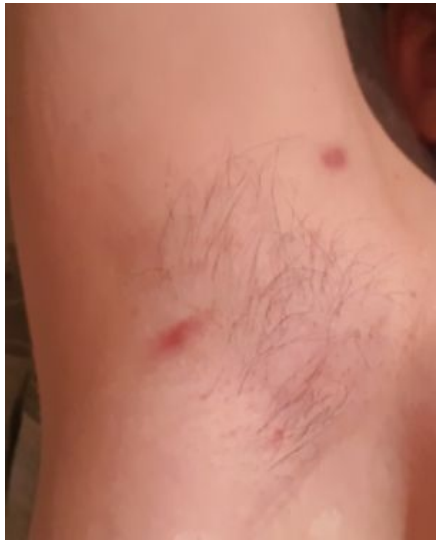
- Neurofibromatosis
- Sebaceous horn
- Onychogryphosis
- Hidradenitis suppurativa
- Ganglion

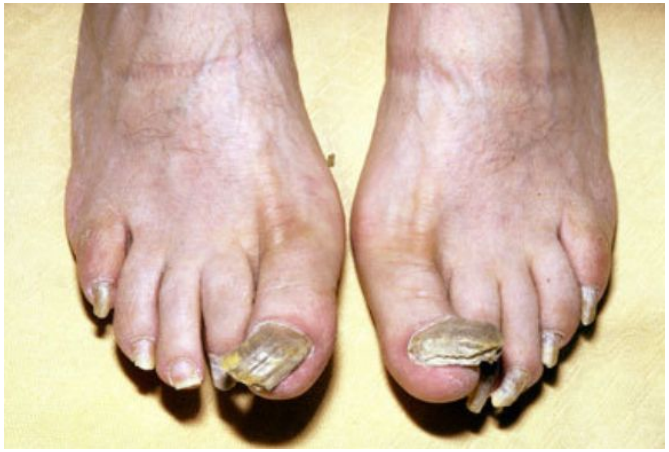


Cafe au lait macule









Examination of a Lump: Summary

Inspection:

- Location/position,
- Contour (regular or irregular),
- Pulsation (aneurism or high blood flow),
- Colour of skin (red, pigmented, etc)
- Abnormalities in skin (peau d'orange)
- Abnormal vessels

palpation

- Cough impulse
- Consistency (Soft, firm, hard, rubbery; uniform, varied, lobulated)
- Emptying
- Fluctuation
- Position (measured from a landmark)
- Surface (smooth, rough, irregular)
- Shape
- Size (tape measure)
- Tenderness
- Temperature
- Thrill or pulsation

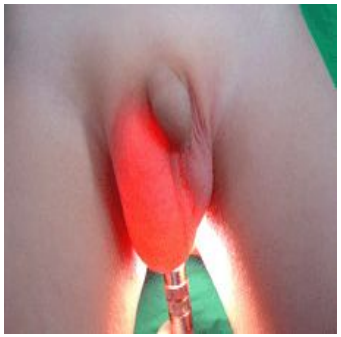
Examination of a Lump: Summary

Move (plane of attachment)

- Skin Tethering (attempt to pick up a fold of skin over the swelling and
- compare with other side)
- Deeper structures (attempt to move the swelling in different planes
- relative to surrounding tissues)
- Muscles and tendons (palpate the swelling whilst asking the patient to use
- the relevant muscle)

Specific Tests

- Transillumination (if you suspect the mass is filled with clear fluid, eg a
- hydrocoele)
- Auscultation (for bruits or bowel sounds)



Regional Lymph Nodes

- You must be aware of the main routes of lymphatic drainage and the
- relevant regional lymph nodes. There are specific ways of examining
- different groups of lymph nodes
- Clinical Examination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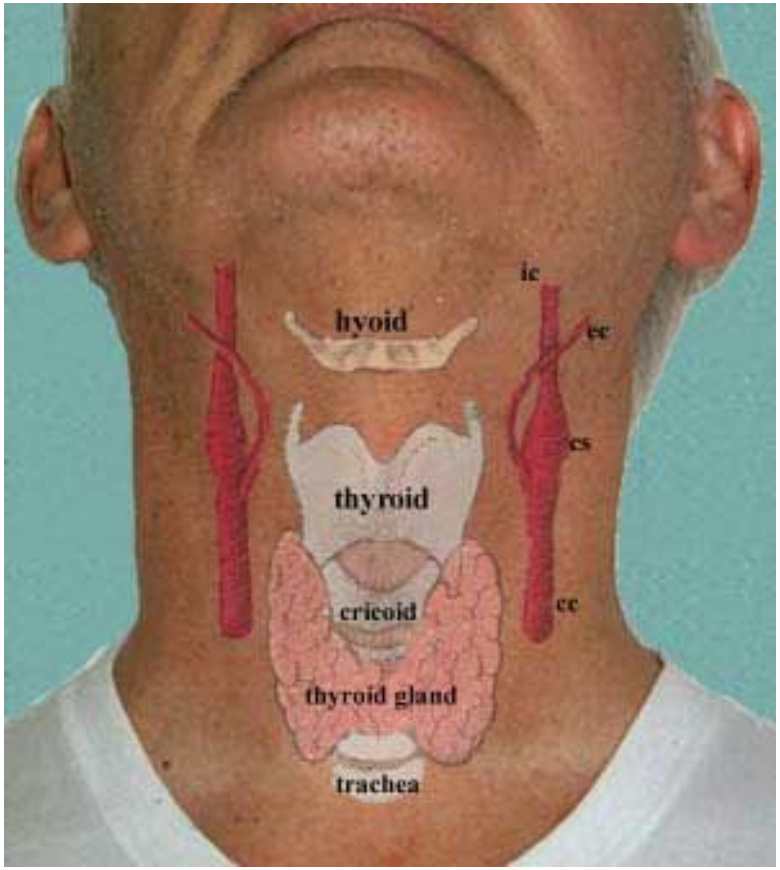
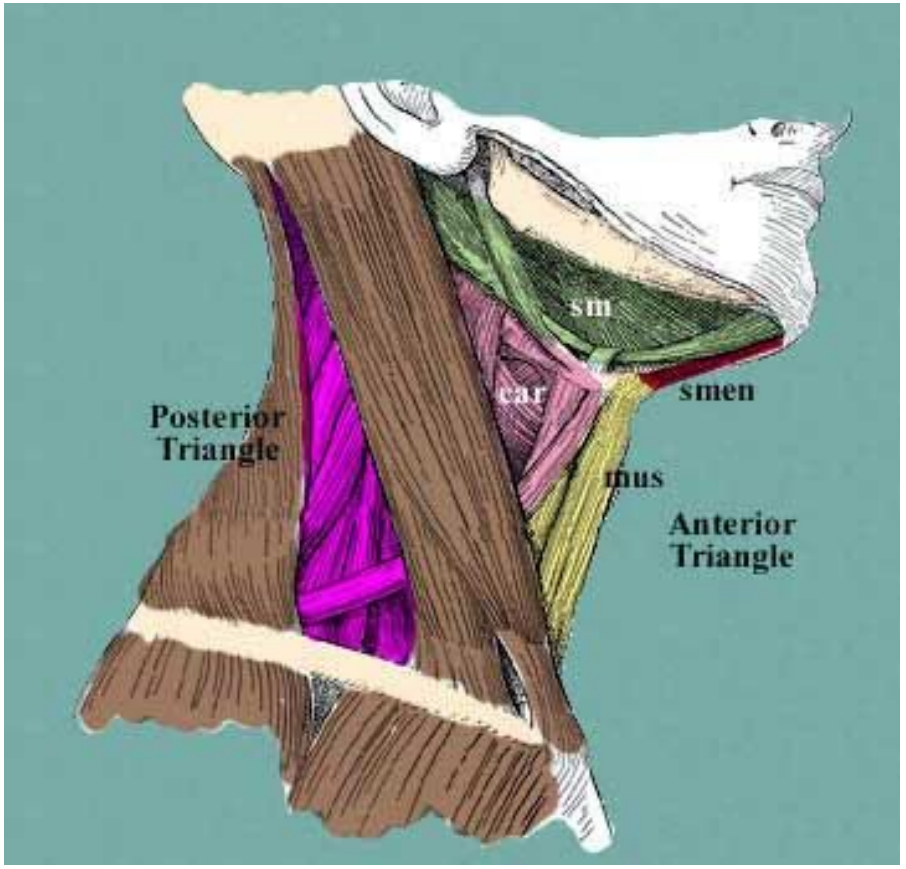
NECK LUMPS

:CONTENTS

- Thyroid gland / goitre
- Lump in the neck
- Lymph node examination
- Scheme for the diagnosis of a neck lump
- Few different neck lumps

Basic Anatomy





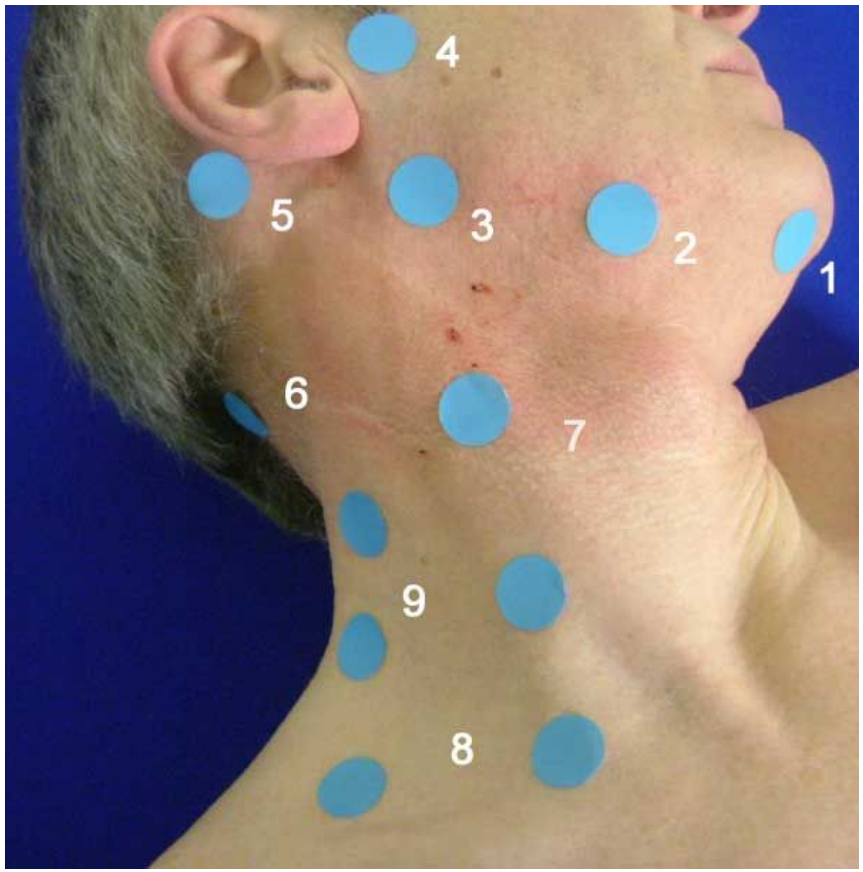
CERVICAL LYMPH NODE EXAM

- Introduce yourself
- Check patient identifiers
- Gain consent and explain what the examination involves
- Expose the neck

CERVICAL LYMPH NODE EXAM

- Best performed from behind the patient (NB tell patient)
- Systematically examine each lymph node in turn using the **pulps** of the fingers
- Remember not to press around the carotid region on both sides at the same time

POSITION OF CERVICAL L NODES



1. Submental
2. Submandibular
3. Parotid / tonsilar
4. Preauricular
5. Postauricular
6. Occipital
7. Anterior cervical superficial and deep
8. Supraclavicular
9. Posterior cervical

DESCRIPTION

- SITE
  - Localised or generalised, 1 or 2+
- SIZE
  - Greater then 1 cm
- TENDERNESS
  - Suggests acute inflammation or infection
- CONSISTENCY
  - Soft may be normal, hard suggests carcinoma, rubbery suggests lymphoma
- FIXATION
  - Fixation to underlying structures more suggestive of carcinoma

CERVICAL LYMPH NODE EXAM

CERVICAL LYMPH NODE EXAM MUST INCLUDE:

- Examination of axillary, inguinal and epitrochlear nodes
  - For generalised lymphadenopathy
- Full ENT examination
- Abdominal examination
  - Splenomegaly, hepatomegaly para aortic nodes and masses

?WHAT IS NATURE OF THE LUMP

- Number of lumps?
- Site?
- Solid or cystic?
- Does it move with swallowing?

SWELLINGS SCHEME FOR DIAGNOSIS OF NECK

- MULTIPLE lumps
  - Lymph nodes
- SINGLE lump
  - Anterior triangle and moves with swallowing
    - **Solid**
      - Thyroid Gland
      - Thyroid isthmus lymph node
    - **Cystic**
      - Thyroglossal cyst

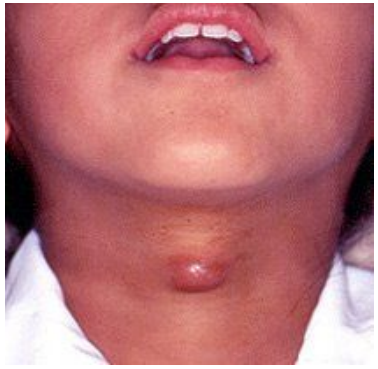
SCHEME FOR DIAGNOSIS OF NECK SWELLINGS

- ANTERIOR TRIANGLE **and doesn't move with swallowing**
  - **Solid**
    - Lymph node
    - Carotid body tumour
  - **Cystic**
    - Cold abscess
    - Branchial cyst
  - **Pulsatile**
    - Carotid aneurysm

:SCHEME FOR DIAGNOSIS OF NECK SWELLINGS

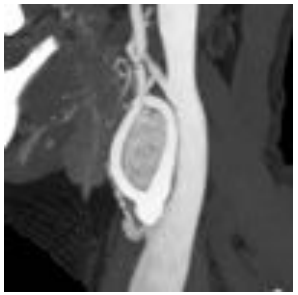
- POSTERIOR TRIANGLE
  - **Solid**
    - Lymph node
  - **Cystic**
    - Cystic hygroma
    - Pharyngeal pouch
  - **Pulsatile**
    - Subclavian aneurysm

ROGLOSSAL CYST



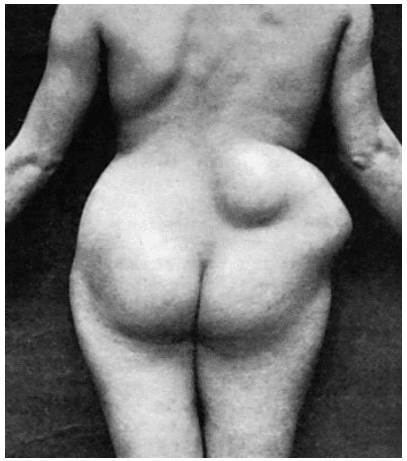
- Painless, cystic midline swelling in the region of the hyoid bone
- Become symptomatic through inflammation – Pain and swelling
- Moves up on swallowing and protrusion of the tongue
- Cyst is a portion of the thyroglossal duct, found at the base of the tongue that remains patent = cystic structure
- Can occur any age most common between 15 and 30

CAROTID BODY TUMOUR



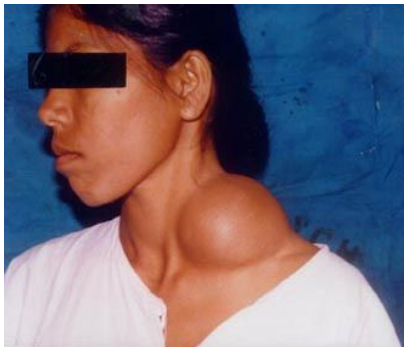
- Slow growing tumour of the carotid body at the carotid bifurcation. Eventually locally invasive
- Moves side to side but not up and down
- Transmits the carotid pulsation, and can be vascular enough to have its own pulse
- Diagnosed by carotid angiogram and treated with surgical removal

COLD ABSCESS



- An abscess that is associated with TB
- Very slow growing and only becomes painful with pressure on the surrounding area
- Can be found anywhere on the body but most common on the spine, lymph nodes and genitals
- Treatment by either surgical or percutaneous drainage

BRANCHIAL CYST

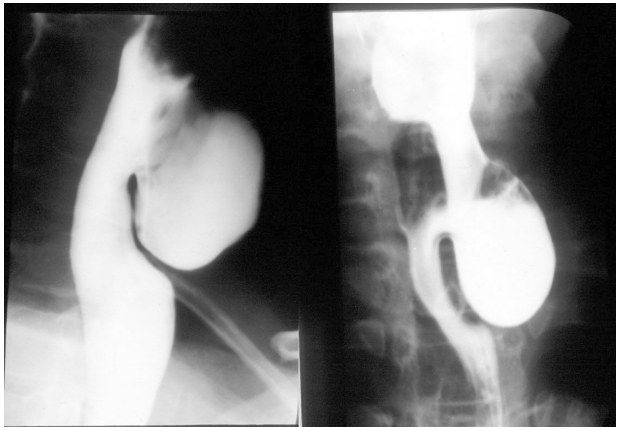


- Presents as a smooth swelling in front of the anterior border of the sternomastoid muscle at the junction between the upper and middle two thirds
- Its fluctuant but doesn't transilluminate, it doesn't move on swallowing
- Most common in young adults after a URTI
- It arises from embryonic remnants of the second branchial cleft

CYSTIC HYGROMA

- A congenital lesion of lymph-filled spaces arising from an embryonic remnant of the jugular lymph sac
- not a true cyst but rather a lymphatic hamartoma
- soft, fluctuant and highly transilluminable lump just beneath the skin. It may be lobular and usually is painless. It contains clear fluid and may be of any size.
- As well as being found on the neck and face they can be found on the chest wall or in the axilla

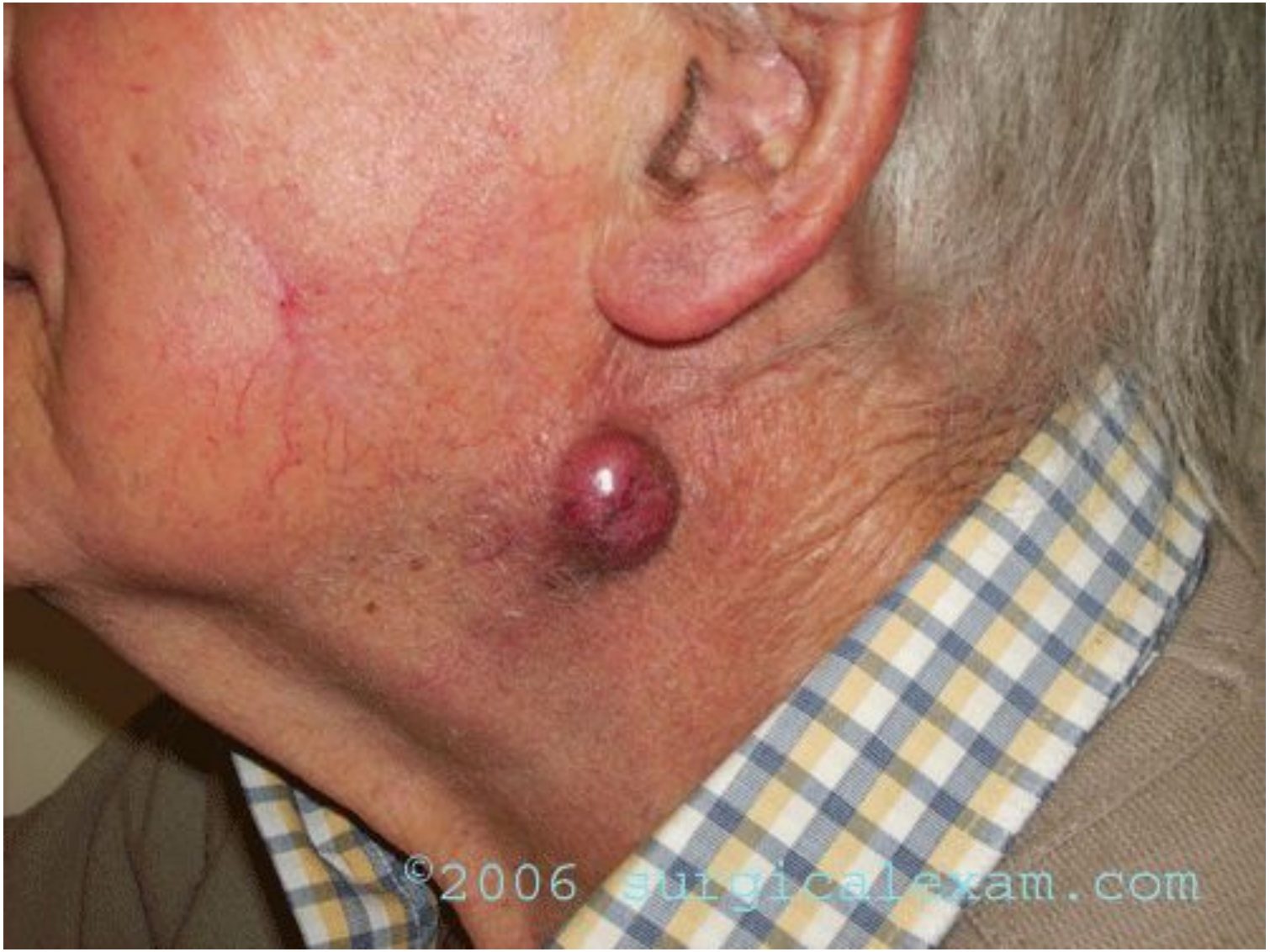
RYNGEAL POUCH



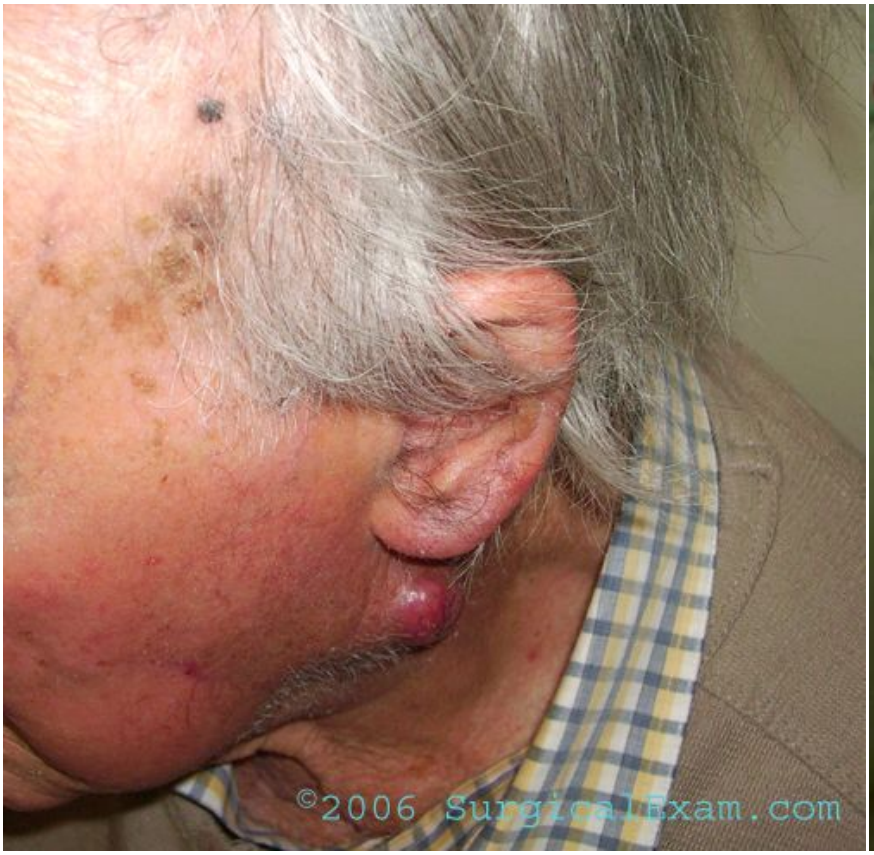
- A diverticulum of the pharyngeal mucosa
- Bulges through a weakness in the pharyngeal constrictor
- More common on the left rather than right, usually elderly men
- Presents with dysphagia, halitosis and a swelling in the neck that gurgles
- Diagnosed on barium swallow

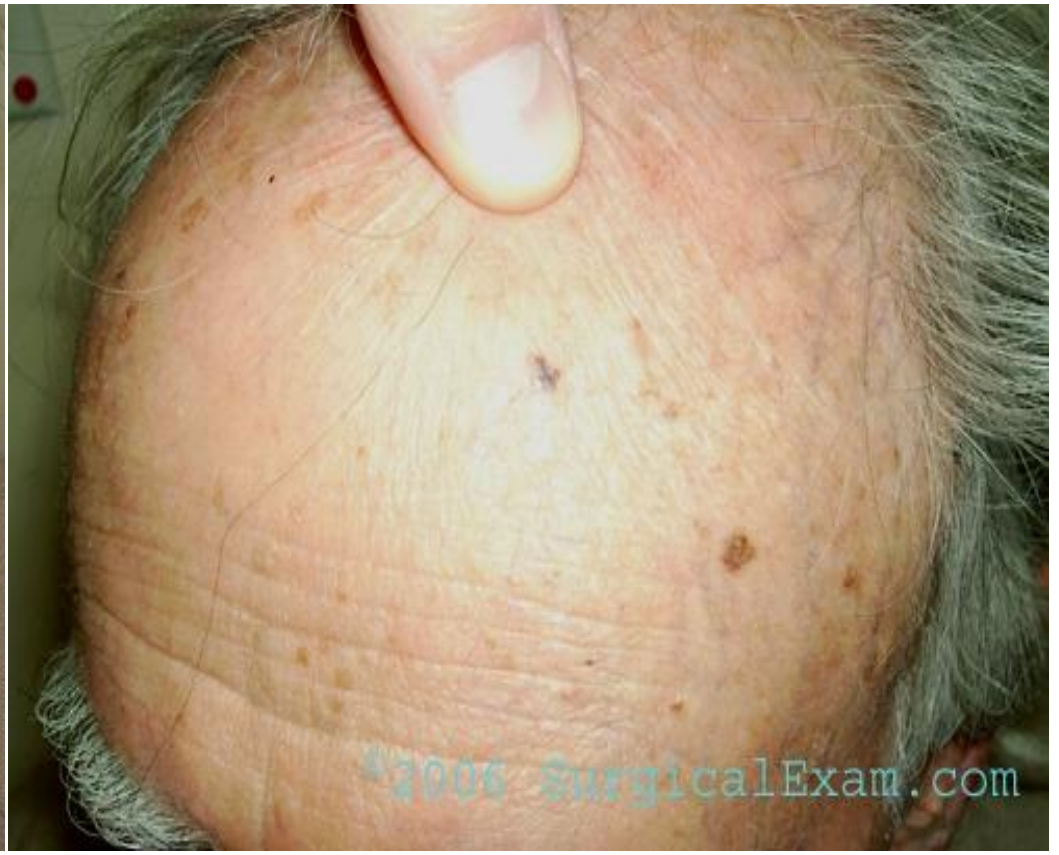
Case : Growing neck lump

This 85 year old man is referred to you with an enlarging .lump in the left neck



Further information - see the following





1. **Describe the lesion**

There is a hemispherical raised lesion which is deeply purple in color, smooth in contour, which seems to be involving the overlying skin.

2. **What is the differential diagnosis?**

Malignant lesion - primary skin lesion or metastatic nodal disease involving skin. Less likely would be an infected sebaceous cyst.

3. **What else would you examine?**

The skin of the head and neck, complete ENT exam, and other lymph node groups.

4. **What do you see?**

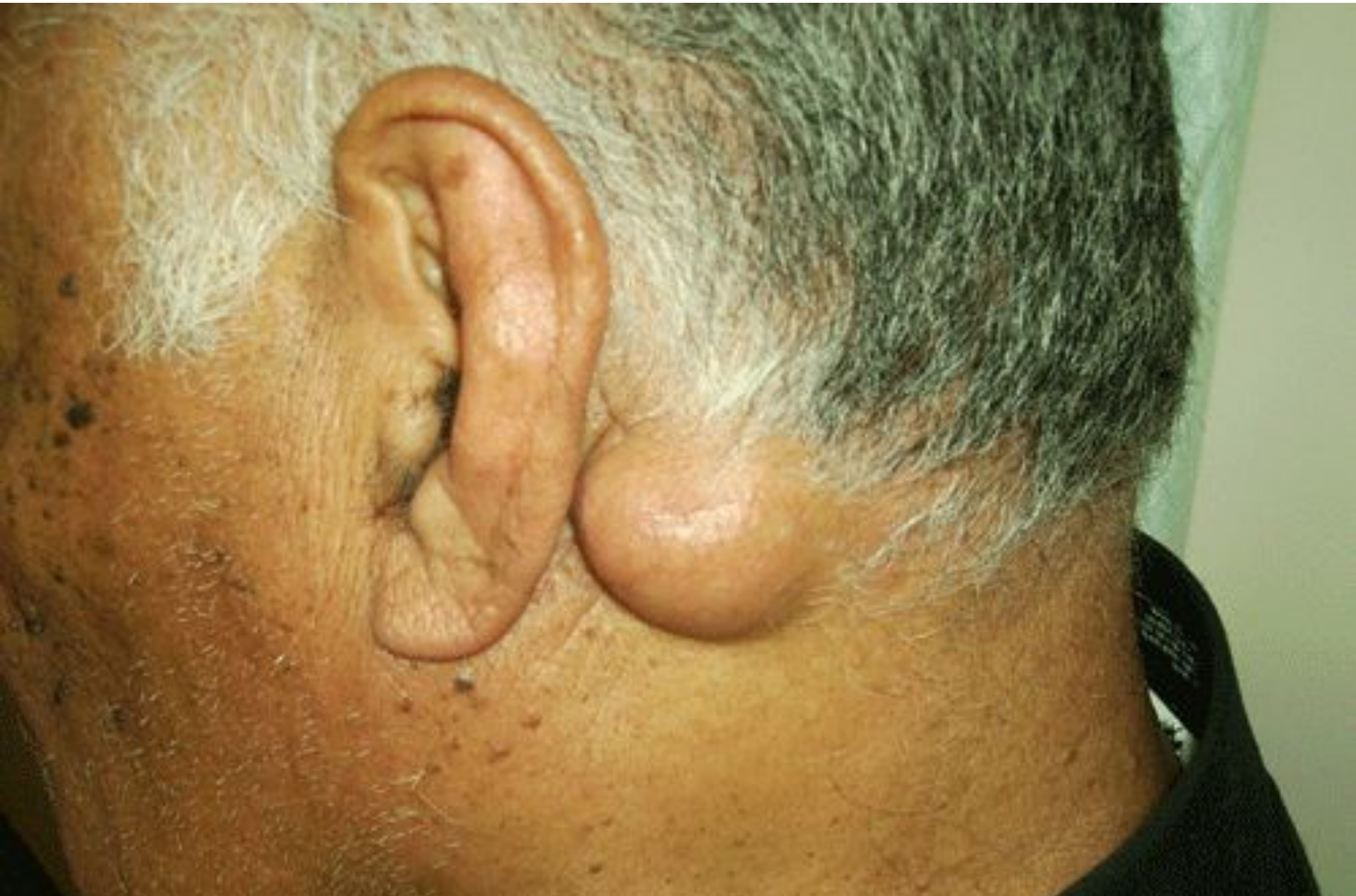
Pigmented skin lesions consistent with melanoma.

5. **Now what is your likely diagnosis?**

Nodal involvement of metastatic melanoma.

Case 2: Painless post auricular swelling

.This man presented with a mass behind the left ear



1. WHAT IS THE DIFFERENTIAL DIAGNOSIS?.

- This Includes:

sebaceous cyst
lymphadenopathy
lipoma
inclusion dermoid
dermoid cyst
simple cyst

The differential is large. However it can be narrowed by considering the lumps physical characteristics. It is smooth, does not involve skin, there is no punctum, and if felt it is soft, fluctuant and importantly is quite transilluminable.

2. Further treatment?

A simple cyst would be uncommon in this area so it was excised and submitted for histopathology - this showed a simple cyst.