



## Superficial swellings

### Objectives:

Not given.

### Resources:

- 436 Slides
- 435 team work
- Davidson's

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COLOR INDEX:

NOTES , IMPORTANT , EXTRA , DAVIDSON'S

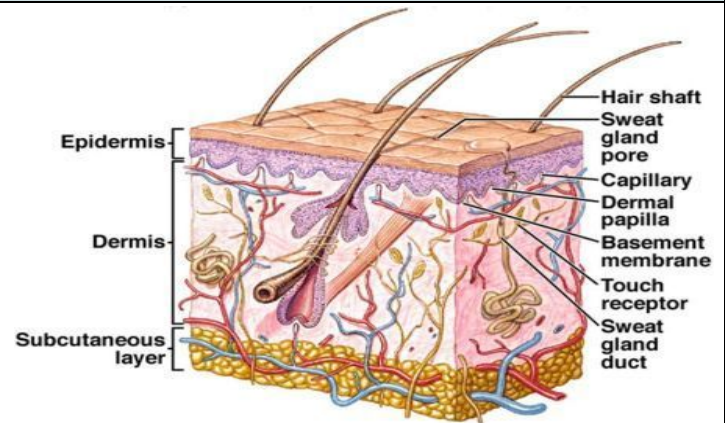
EDITING FILE

FEEDBACK

## Basic review (from the doctor's slides):

### Skin anatomy :

- Epidermis: openings of glands.
- Papillary dermis: basal cell layer.
- Dermis: contains sweat & sebaceous glands.



## History of A Lump Or Ulcer

\*Note: Dr. Tariq mentioned that practicing history and examination of lumps is important for third year students (and for OSCE)

- **Duration** (when was the first time noticed)
- **First symptom** (how the patient noticed it)
- **Other symptoms** is the swelling asymptomatic (ex: thyroid masses (could give functional symptoms)) or symptomatic? As pain, tenderness, itching or compressive symptoms
- **Progression** (change since notice)
- **Persistence** (has it ever disappear or healed)
- **Any other lumps or ulcers**
- **Cause** as previous infections or trauma
- Who discovered it?

## Examination of A Lump

### Inspection:

- Shape
- Site
- Color/skin changes.
- Size

So the lesion is usually described this way:

A (shape) swelling in the (site), # by # in size, normal skin color, no discharge.

### Palpation:

- Temperature (hot in inflammation and abscess)
- Tenderness (present in inflammation and abscess)

- Surface (smooth as in cysts and usually benign swellings, or irregular that might be malignant)
- Edges (well or ill defined)
- Consistency cystic(fluid), soft, firm and hard
- Mobility (fixed or mobile?)
- Pulsation (vascular)
- Compressibility<sup>1</sup>: vascular 'hemangioma'?
- **Fluctuation** (usually with cysts and abscesses, if you press on one side you'll feel fluids on the other side)
- Transillumination test: +ve in hydrocele, unless if it's complicated by a hematoma

<sup>1</sup> If it's a hernia, we call this reducibility NOT compressibility.



# Classification of lumps

1. Congenital:
  - a. Cystic
  - b. Solid
2. Acquired (due to infection or trauma):
  - a. Cystic
  - b. Solid

\*They could also be classified as benign/malignant or infected/not infected

## 1. Benign lumps

### ❖ Papilloma (warts):



<b>What is it?</b>	<ul style="list-style-type: none"> <li>- Fingers -and hands- like projection of all skin layers.</li> <li>- Usually infective by <b>papilloma virus</b> (called <b>viral warts</b>).</li> </ul>	
<b>Types</b>	<p><b>1-Pedunculated</b> (have a stalk/neck)</p> 	<p><b>2-Sessile</b></p> 
<b>Treatment:</b>	<ul style="list-style-type: none"> <li>• If small or multiple → <b>Cauterization<sup>2</sup></b>.</li> <li>• If large → <b>surgical Excision</b>.</li> </ul>	

### ❖ Scars :


- Fibrous tissue proliferation following trauma, surgery, infection (like abscesses).
- It is usually flat.

types	<b>Hypertrophic scar</b>	<b>Keloids</b>
<b>What is it?</b>	<ul style="list-style-type: none"> <li>- Excessive <b>fibrous tissue</b> in a scar.</li> <li>- This is an exaggeration of the normal maturation process.</li> <li>- Such wounds are very raised but never continue to worsen after 6 months.</li> </ul>	<ul style="list-style-type: none"> <li>- Excessive <b>fibrous and collagen</b> tissue.</li> <li>- These are similar to hypertrophic scars except that they continue to enlarge after 6 months.</li> </ul>
	- <b>Confined</b> to the scar.	- Usually <b>extends beyond</b> the original scar



<b>Gross Features</b>	<ul style="list-style-type: none"> <li>- <b>NO</b> neovascularization.</li> <li>- Wound infection is an important factor.</li> </ul>	<p>(beyond edges of scar)</p> <ul style="list-style-type: none"> <li>- There is <b>neovascular</b> proliferation in a scar (so still growing)</li> <li>- They are most likely to occur across the upper chest shoulders and earlobes.</li> </ul>
<b>Clinical features</b>	<ul style="list-style-type: none"> <li>- It is a raised, non-tender swelling with <b>no itching</b>.</li> <li>- It may regress gradually in six months</li> <li>- Does not usually recur after excision.</li> </ul>	<ul style="list-style-type: none"> <li>- Initially raised, pink, tender, itchy and may ulcerate.</li> <li>- More common in dark skinned people.</li> </ul>
<b>Treatment</b>	<p>Silicone gel and steroid injections. Excision is <b>NOT</b> a solution!</p>	<ul style="list-style-type: none"> <li>- Injection (hyaluronidase , steroids etc.)</li> <li>- Excision &amp; grafting .</li> </ul>
<b>example</b>		

### ◆ Infantile haemangioma (strawberry naevi):

<b>What?</b>	<ul style="list-style-type: none"> <li>- The most common tumor in infancy.</li> <li>- Presents as bright-red raised lesion with an irregular bosselated surface, which changes to a blue color when the baby cries.</li> <li>- They typically proliferate for up to 6 months then remain static for 2-3 years.</li> </ul>
<b>Where?</b>	<ul style="list-style-type: none"> <li>- The most common affected organ is the skin, especially in the head, neck, trunk and extremities.</li> <li>- But it can affect other organs (e.g lips , tongue ,liver ,brain).</li> </ul>
<b>Treatment:</b>	<ul style="list-style-type: none"> <li>● These lesions can resolve spontaneously.</li> <li>● Large or ulcerating lesions may be treated with oral propranolol to accelerate involution.</li> </ul>
<b>Examples</b>	

# Skin Cysts

❖ **Dermoid cysts:** They are classified to congenital (sequestration) and acquired (implantation) cysts.

## 1. Congenital (sequestration) dermoid:

<b>What?</b>	-They arise from nests of epidermal cells that have been sequestered in the dermis which are lined by squamous epithelium. It is benign.
<b>Commonly in:</b>	Common at lines of Embryonic fusion sites: <ul style="list-style-type: none"> <li>• Midline: neck &amp; root of nose.</li> <li>• Scalp.</li> <li>• Inner or outer angles of eyes.</li> </ul>
<b>Clinical features</b>	<ul style="list-style-type: none"> <li>• Painless, spherical, cystic mass.</li> <li>• Appears in <b>childhood</b> or adults.</li> <li>• Grows slowly</li> <li>• Smooth surface.</li> <li>• Not attached to skin.</li> <li>• No punctum.</li> <li>• Not compressible.</li> <li>• Transillumination test is <b>negative</b>.</li> <li>• No discharge.</li> </ul>
<b>complications</b>	<ul style="list-style-type: none"> <li>• Infection.</li> </ul>
<b>Treatment</b>	<ul style="list-style-type: none"> <li>• Excision and drainage.</li> </ul>



Occipital dermoids



nasal root dermoid



forehead dermoid



External angular dermoid




Submental dermoid



Infected dermoid

## ❖ Implantation Dermoid :

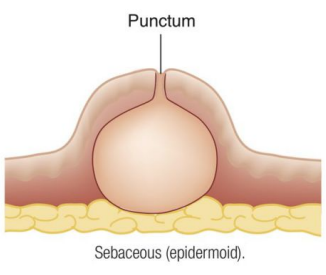
<b>What?</b>	-It is a <b>post traumatic dermoid</b> .
<b>Commonly in</b>	Commonly in fingers and hands of farmers or taylor's.
<b>features</b>	<ul style="list-style-type: none"> <li>- Tense, may be hard tender swelling.</li> <li>- <b>Attached to skin which may be scarred.</b></li> <li>- Contains desquamated epithelial cells.</li> <li>- Pain and ulceration may occur following repeated trauma.</li> </ul>
<b>Treatment</b>	Excision is curative.
<b>examples</b>	

## ❖ Epidermoid (sebaceous) Cyst:

<b>What?</b>	Subcutaneous unilocular swellings arising from inflammation in a pilosebaceous unit. Which are common in the head and neck. They are called pilar cysts if present in the scalp (most commonly) or scrotum.
<b>Clinical features</b>	<ul style="list-style-type: none"> <li>- Spherical, cystic or tense swelling, <b>attached to skin with punctum</b> that may discharge sebum upon squeezing.</li> <li>- They have thin wall of flattened epidermal cells and contain keratin.</li> <li>- If infection supervenes the cyst become hot, red and painful.</li> <li>- Lined by squamous epithelium and contains sebum and desquamated epithelium.</li> </ul>
<b>N.B.</b>	<ul style="list-style-type: none"> <li>● Indentation and fluctuation tests may be positive.</li> <li>● But transillumination test is negative.</li> <li>● <b>Usually asymptomatic but there might be some complication</b></li> </ul>
<b>complications</b>	<ul style="list-style-type: none"> <li>● <b>Infection (symptoms are throbbing pain and redness).</b></li> <li>● Ulceration.</li> <li>● Cock peculiar tumour (granuloma due to ulceration).</li> <li>● Sebaceous Horn (inspissated secretion sebum).</li> </ul>
<b>Treatment</b>	- Uninfected cyst → Simple excision.



**examples**



**Sebaceous Horn**



**Infected sebaceous cyst**




**Sebaceous cyst excision**



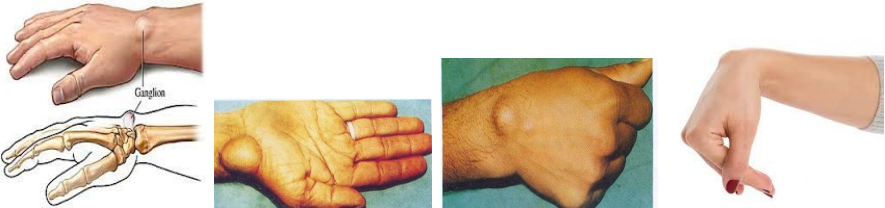
**❖ Lymphatic malformation (Cystic hygroma):**

<b>What?</b>	A <u>congenital</u> malformation affecting lymphatic channels.
<b>Commonly in</b>	<ul style="list-style-type: none"> <li>● Neck.</li> <li>● Axilla.</li> <li>● Groin.</li> <li>● Mediastinum.</li> </ul>
<b>Clinical features</b>	<p>- Appears early, <u>painless</u>, multilocular, <u>irregular</u>, filled with clear fluid ( transillumination +ve ).</p> <p>- Lined by columnar epithelium.</p> <p>- <u>Becomes red when infected.</u></p>
<b>Examples</b>	

## ❖ Branchial cyst:

<b>What?</b>	- A <u>congenital</u> cyst in persistent cervical sinus below angle of mandible or behind mid s.mastoid muscle. <b>It originates from the 2nd and 3rd branchial arches (cleft).</b>
<b>Clinical features</b>	- Tense ,distinct edges, <b>+ve fluctuation</b> and <b>-ve transillumination</b> . - Contains cholesterol crystals.
<b>Examples</b>	

## ❖ Ganglion cyst:

<b>What?</b>	- It's a cystic swelling of synovial membrane of tendon or capsule in small joints. - Myxomatous degeneration.
<b>Commonly in</b>	- <b>Dorsum of hand and wrist.</b> - Dorsum of foot and ankle. - <b>Palmar aspect of wrist &amp; fingers.</b>
<b>Clinical features</b>	<ul style="list-style-type: none"> <li>• May be communicating.</li> <li>• Slowly growing lump.</li> <li>• Common in females.</li> <li>• Spherical, firm, <b>painless</b>, cystic swelling.</li> <li>• Mobile across tendon axis but limited along longitudinal axis.</li> </ul>
<b>Treatment</b>	<ul style="list-style-type: none"> <li>• Asymptomatic → reassurance.</li> <li>• Symptomatic → aspiration or excision.</li> </ul>
<b>Examples</b>	



transillumination test



aspiration of ganglion



ganglion excision




# Tumors of muscles and connective tissue

## ❖ Lipoma:

<b>What?</b>	- Very common, slow growing and benign tumor of fat that forms a soft, mobile subcutaneous mass can be enclosed in a <b>thin fibrous capsule</b> (with well defined edges) or diffuse (with ill defined edges).
<b>Commonly in</b>	Common in trunk, neck and limbs
<b>Clinical features</b>	<ul style="list-style-type: none"> <li>● Painless, non tender, soft and lobulated lump.</li> <li>● Well defined edges and skin is free.</li> <li>● Slipping sign positive.</li> <li>● Freely mobile.</li> <li>● Fluctuation test is negative.</li> <li>● Transillumination test is <b>negative</b>.</li> </ul>
<b>Complications</b>	<ul style="list-style-type: none"> <li>● Necrosis/ulceration.</li> <li>● Calcification.</li> <li>● Haemorrhage.</li> <li>● Infection.</li> <li>● <b>Rarely</b> transform into liposarcoma.</li> </ul>
<b>Diagnosis</b>	<ul style="list-style-type: none"> <li>● Pure clinical diagnosis can be enough... we might also order CT</li> <li>● Fine needle aspiration.</li> </ul>
<b>Treatment</b>	<ul style="list-style-type: none"> <li>● Small asymptomatic lipoma → reassurance</li> <li>● Large, symptomatic, and deep lipoma :             <ul style="list-style-type: none"> <li>○ Excision after appropriate imaging.</li> <li>○ No suspicion of malignancy → liposuction.</li> </ul> </li> </ul>
<b>Examples</b>	  <p>multiple lipomatosis (Dercum's disease)</p>  <p>ulcerated lipoma One of the indications for surgery</p>

## Summary

Swelling	Imp. Points
<b>Papilloma (warts)</b>	-Finger like projections Usually caused by <b>papilloma virus</b> -Treated by cauterization and surgical excision.
<b>Scars</b>	<b>1)Hypertrophic scar:</b> -Excessive <b>fibrous tissue</b> in a scar that is <b>confined</b> to the scar, with <b>no</b> neovascularization. -It is a raised, non-tender swelling with <b>no</b> itching. -Treatment: Silicone gel and steroid injections.  <b>2)Keloids scars:</b> -Excessive <b>fibrous and collagen</b> tissue, that usually <b>extends beyond</b> the original scar,with <b>neovascular</b> proliferation. -Treatment: injection, <b>excision</b> & grafting.
<b>infantile haemangioma</b>	-Presents as bright-red raised lesion with an irregular bosselated surface, which changes to a <b>blue</b> color when the baby <b>cries</b> ,affects the skin (head, neck, trunk and extremities). -Treatment: 1-Can resolve spontaneously. 2-Oral propranolol.
<b>Congenital dermoid</b>	-It is painless, spherical,cystic mass, having a smooth surface. -Transillumination test → <b>-ve</b> . -Common at lines of Embryonic fusion sites: <b>scalp</b> ,Inner or outer <b>angles of eyes</b> , <b>neck</b> & root of nose. -Treatment: excision and drainage.
<b>Implantation Dermoid</b>	-Tense, hard tender swelling, <b>attached to skin</b> which may be <b>scarred</b> . -Treatment: <b>excision</b> is curative.
<b>Epidermoid (sebaceous) Cyst</b>	-Spherical, cystic or tense swelling, <b>attached to skin</b> with <b>punctum</b> that may discharge sebum upon squeezing. -Indentation and fluctuation tests → <b>+ve</b> . -Transillumination test → <b>-ve</b> . -Complications: <b>infection</b> , ulceration, sebaceous horn. -Treatment: 1-Uninfected cyst → Simple excision                      2-Infected cyst → Excision followed by drainage.
<b>Cystic hygroma</b>	-A <b>congenital</b> malformation affecting <b>lymphatic channels</b> . common in Neck, Axilla, Groin, Mediastinum. -Appears early, painless, multilocular, filled with clear fluid ( transillumination→ <b>+ve</b> ).
<b>Branchial cyst</b>	-It originates from the 2nd and 3rd branchial arches (cleft). -Tense ,distinct edges, fluctuation→ <b>+ve</b> and transillumination→ <b>-ve</b> .
<b>Ganglion cyst</b>	-swelling of synovial membrane of tendon or capsule in small joints.common in <b>Dorsum of hand</b> , <b>wrist</b> and palmar aspect of wrist & fingers -Treatment: 1-Asymptomatic → reassurance                      2-Symptomatic → aspiration or excision.
<b>Lipoma</b>	-Slow growing and benign tumor of fat that forms a soft, mobile subcutaneous mass ,Painless, non tender, soft and lobulated lump, well defined edges and skin is free, slipping sign positive. -Dx: clinical diagnosis,CT and <b>Fine needle aspiration</b> . -Treatment:

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- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>-Small asymptomatic lipoma → reassurance</li><li>-Large, symptomatic, and deep lipoma :<ul style="list-style-type: none"><li>• Excision after appropriate imaging.</li><li>• No suspicion of malignancy → liposuction.</li></ul></li></ul> |
|--|--|



## Quiz

**1. A woman with history of earlobe trauma presented to you complaining of the shape of her earlobes after wound healing. On examination you see a scar with outgrowing beyond the scar edges. Which of the following is most likely correct about this scar.**

- A. Squamous cells predominance with neovascularization
- B. Squamous cells predominance without neovascularization
- C. Rich in fibrous and collagen tissue with neovascularization
- D. Rich in fibrous and collagen tissue without neovascularization

**2. A worried mother presented to you with her infant after she watched a medical show about skin cancer. She told you about a raised bright-red lesion on the skin of her child that changes to blue when he cries. Upon examination you suspected an Infantile haemangioma. What would you tell the mother?**

- A. The lesion must be removed as soon as possible
- B. These lesions can resolve spontaneously
- C. We should inject the lesion with cortisone
- D. This is a suspicion of skin cancer

**3. Which of the following is an important feature in recognising a sebaceous cyst?**

- A. Painless
- B. Compressibility
- C. Presence of visible vessels
- D. Presence of punctum

**4. True or false: when diagnosing lipomas, pure clinical diagnosis or CT can be enough:**

- A. True
- B. False

**5. Transillumination test is negative in all of the following EXCEPT:**

- A. Congenital dermoid.
- B. Epidermoid Cyst.
- C. Lipoma.
- D. Cystic hygroma.

- 1. C
- 2. B
- 3. D
- 4. A
- 5. D