

Day (8) lectures

Prof.Dr.Alaa Alalgawy 2020

1/hand infection

2/foot infection & diabetic foot

3/ankle and foot orthopedics cases

4/approaches to amputation .

Learning objectives :

- 1/ to know the important sites of infection in the hand and causative pathogens .
- 2/to outline the principle of diagnosis , management and follow up of hand infection cases .
- 3/ to study the epidemiology , pathogenesis and clinical presentation of diabetic foot infection , types of ulcers and principles of management.
- 4/to know the most important orthopedics pathologies in the ankle and foot at different age groups .
- 5/ to mention the types of amputation in upper and lower limbs and the principles and approaches for each type.

Hand infection

Prof .Dr.Alaa Al-algawy

2020

Concerning anatomy of the hand

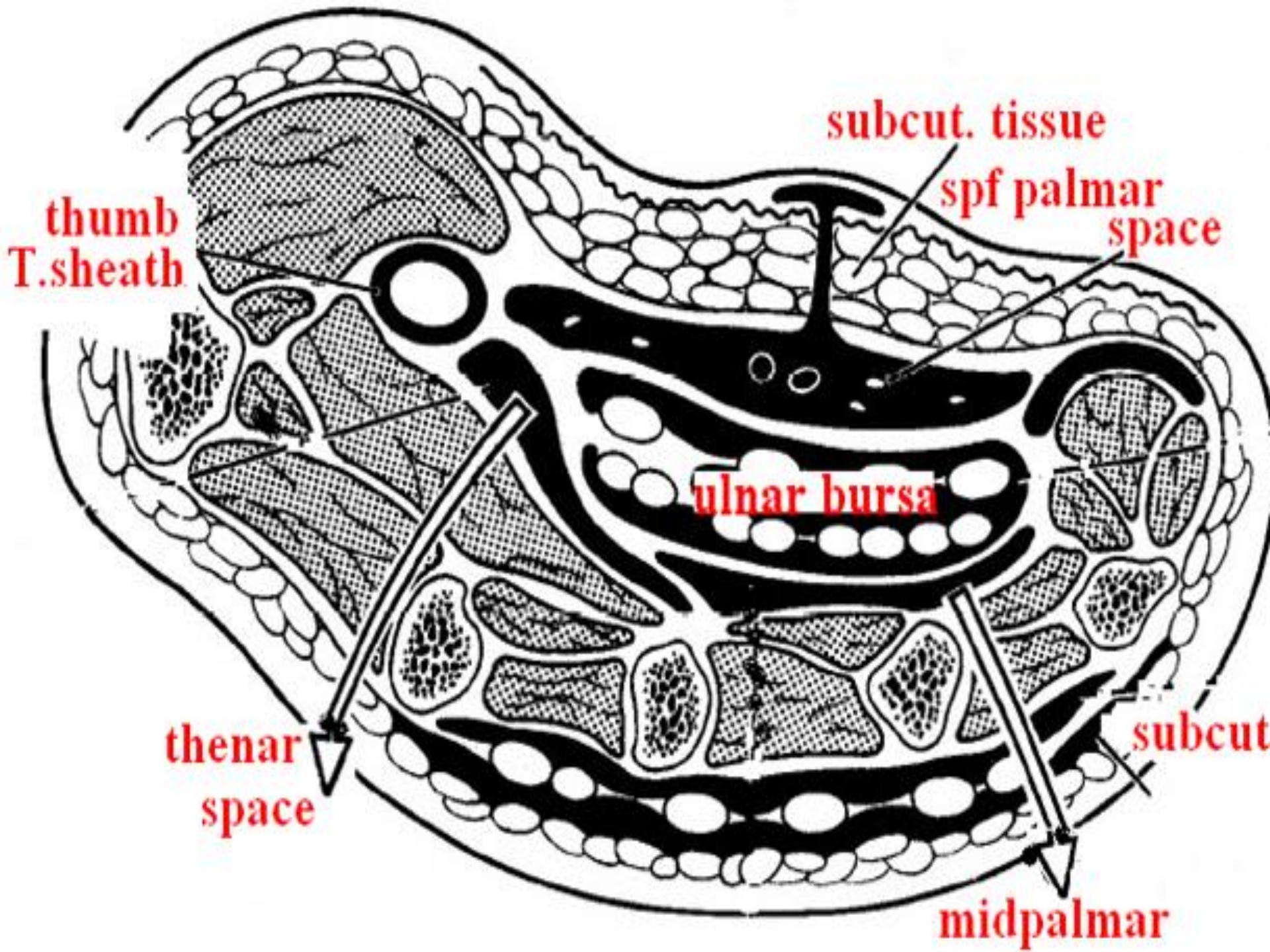
-Finger nail & tendon sheaths infection.

-palmar spaces infection >> Thenar.

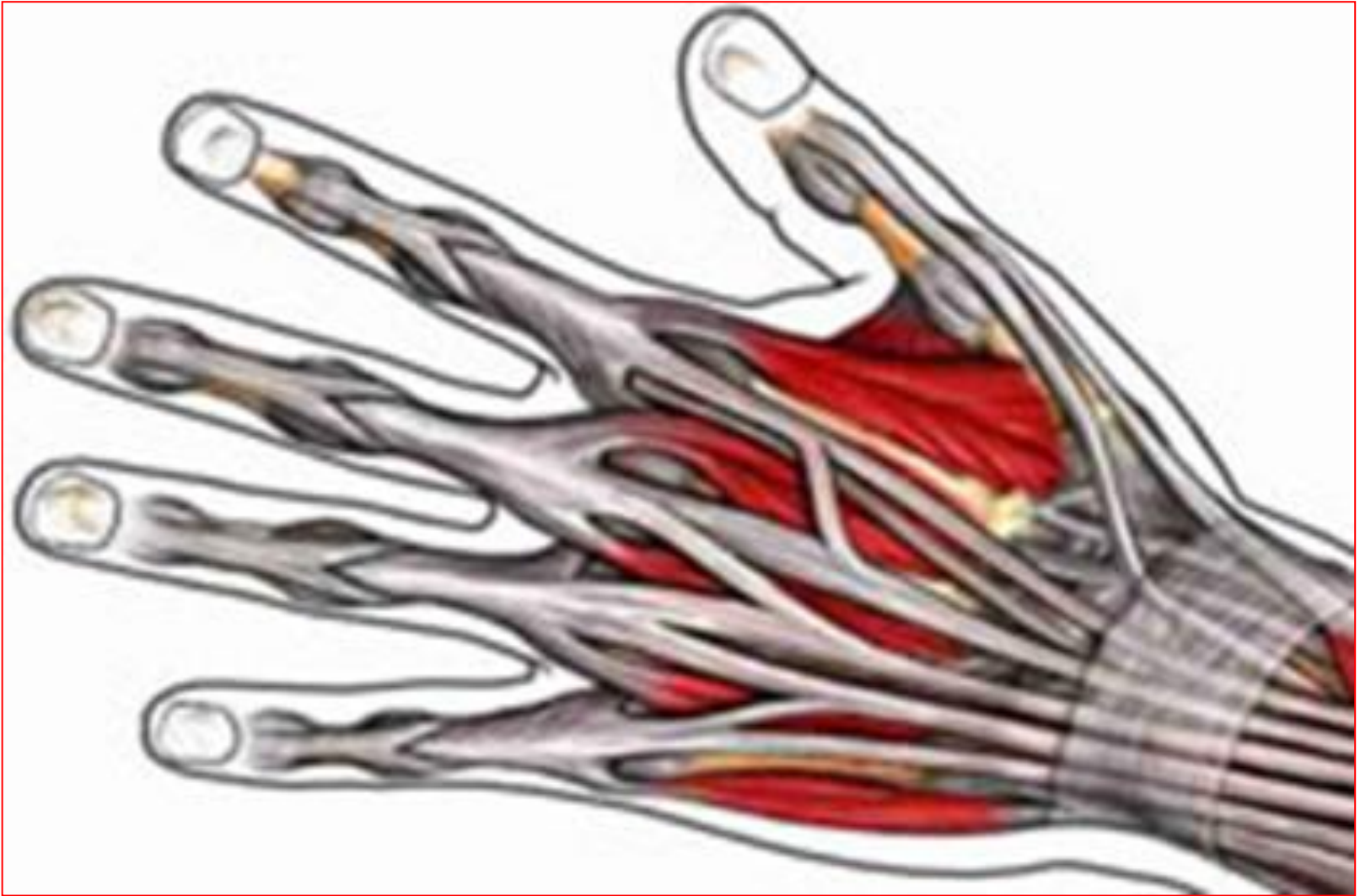
>> Mid palmar space.

>> subcutaneous .

(palmar & dorsal .)







Hand infections: are common, often caused by staphylococci implanted by penetrating wound → acute inflam. React. with edema → **suppuration** & ↑ tissue tension → ↓ blood flow → tissue necrosis & possible **spread** to nearby compartment or blood stream.



CF: swelling, **redness**, **tenderness**.
In superficial infection, finger MVT is free;
In deep infection, it is painful.
Look for lymphangitis & lymphadenitis.



X-ray: Early may show foreign body.
Later: **OM**, septic arthritis or bone necrosis.

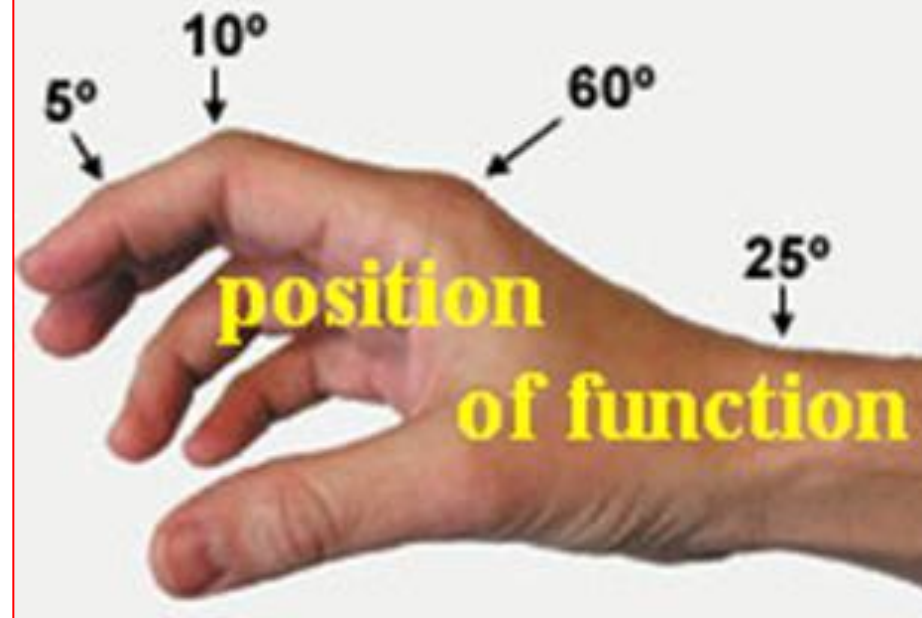
R →

1- AB: flucloxacillin or cephalosporin;
for bone infection add fusidic acid;
for plant prick add metronidazole.

2- Splint & elevation: rest the hand in a splint in the position of safety & elevate it in an arm sling or if severe use overhead sling.

3- Drainage: early, within 48 hrs, AB may be enough. If abscess develops it should be drained & left open for 2nd look.

4- Exercise.

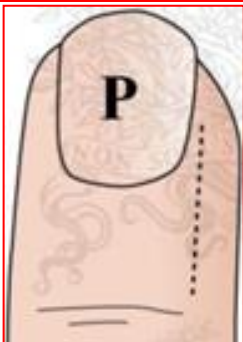


Nail-fold infection (paronychia): infection under nail fold is the commonest hand infection. The fold is swollen, red & tender then collects pus which may spread under the nail. R → AB & pus drainage.

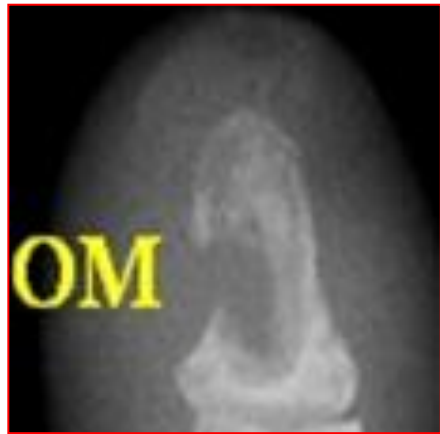
Chronic paronychia may be due to fungal infection.



paronychia

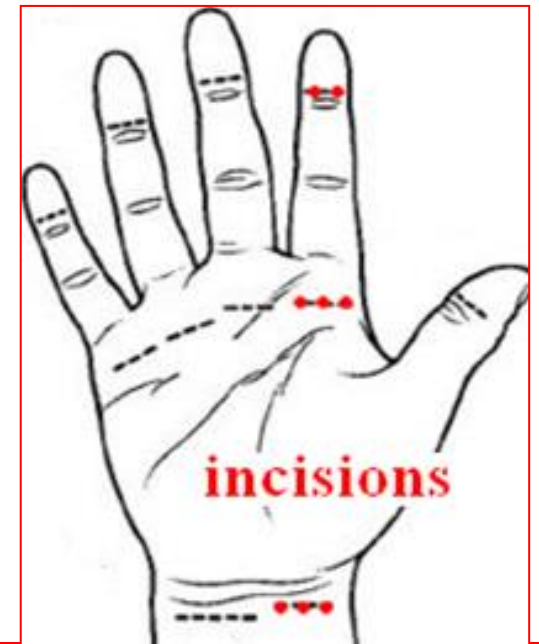


Pulp infection (felon): often caused by **prick** injury → **swollen**, red & **tender** finger tip pulp with **throbbing pain**. Rx → **AB**, **elevation** & abscess **drainage**. If Rx is **delayed**, infection may **spread** to **bone**, **joint** or tendon **sheath**.

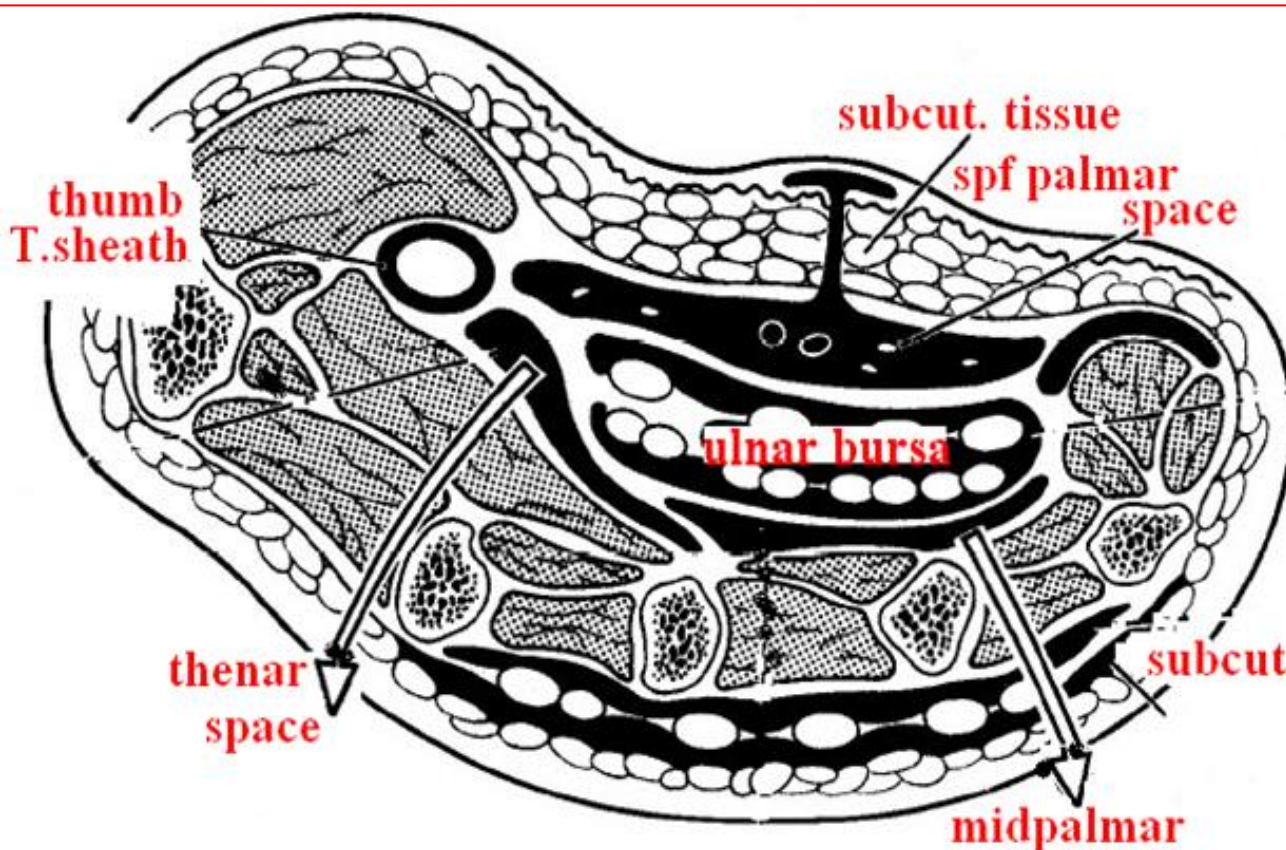
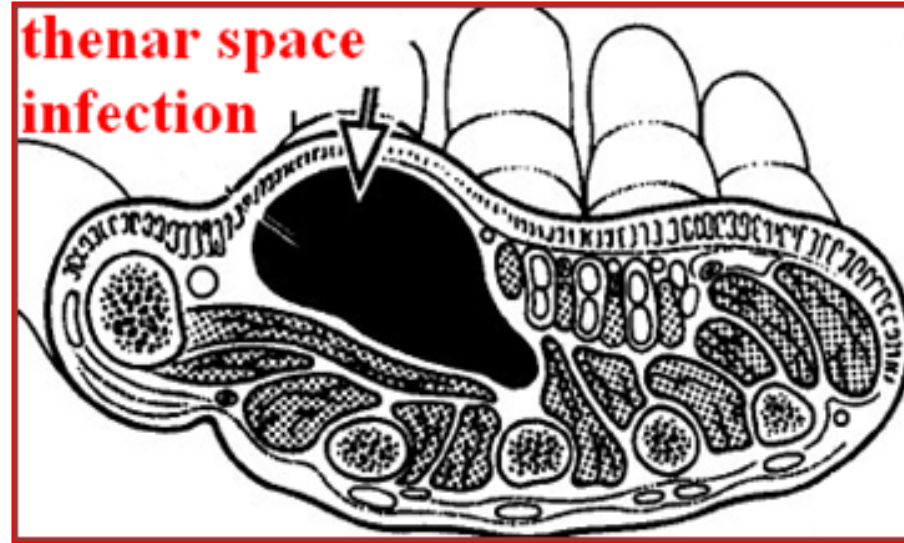


Other **subcutaneous infections**:
anywhere in the hand.

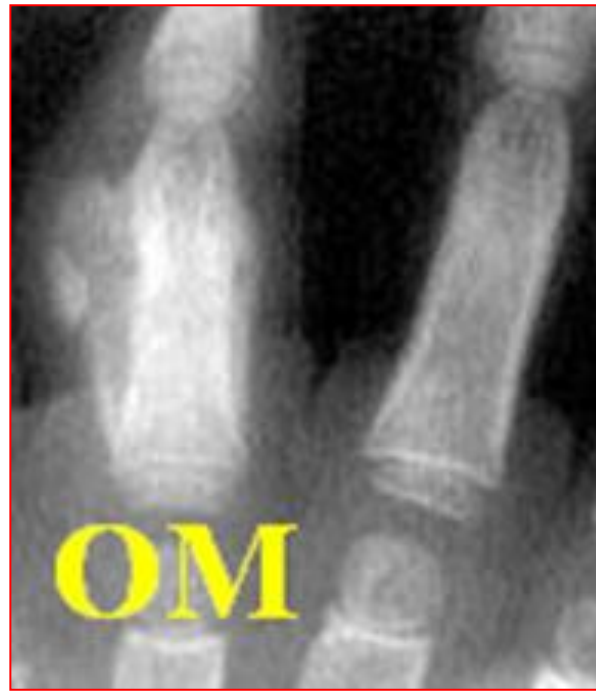
Tendon sheath infection (suppurative tenosynovitis): is **uncommon** but dangerous. Often caused by **penetrating** injury → **swollen**, **painful**, very **tender** finger which is held in **slight flexion** & never allow MVT. If diagnosis is delayed → risk of tendon necrosis or **spread of infection**.
R → hand elevation & splint + i. v. AB; if no response within **24 hrs** → **drainage** by proximal & distal incisions with frequent saline **irrigation** by fine catheter.



Deep fascial space infection: infection of thenar & mid-palmar spaces may come from a wound or spread from web space infection or suppurative tenosynovitis. CF: **pain**, tenderness, palm swelling is **mild** but extensive on the **dorsum**; the hand is held **still** refusing any MVT. R→ i.v. AB, splint, elevation & drainage.



Septic arthritis: of MPJ or IPJ may come from penetrating wound or from blood stream. CF: the joint is painful, swollen, red with limited mvt. R₁→ i.v. AB, splint, drainage & leave wound open. Continue oral AB for 2-4 weeks.



Bites:

Animal bites: by dogs, cats or other animals may become infected, often by staphylococci.

Human bites: are more prone to infection (staph., strept., anaerobe) than animal bites.

R → debridement, AB, splint, elevation. Look for tendon laceration, joint penetration & rabies !!



human bite

