

Examination of ganglion

What is a ganglion?

- A ganglion cyst is a firm, fluid-filled lump that can suddenly appear on the front or back of the wrist or at the base of a finger or at the ankle joint.
- These cysts grow from normal tissue in the wrist and fingers, and range in size from a pea to a peach pit.
- Although ganglion cysts are common they don't spread, and they don't become cancerous.
- They can occur after an injury, but many times it isn't known why they grow.
- Ganglion cysts can change in size, and may go away on their own.

Symptoms

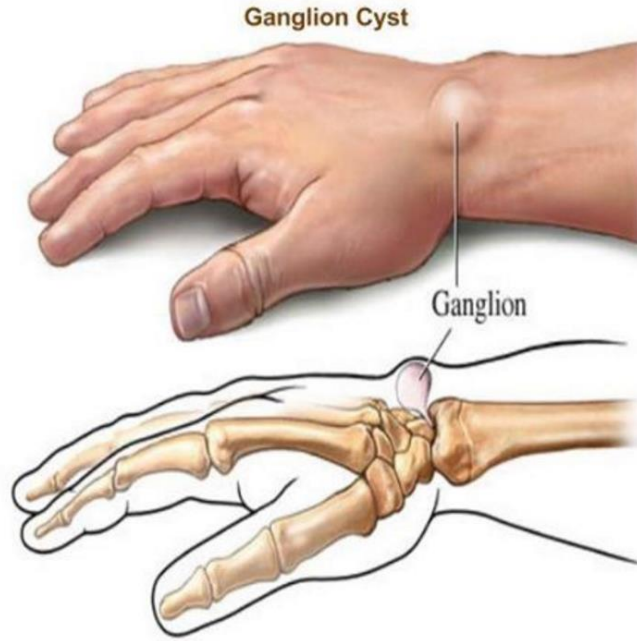
- A ganglion cyst is sometimes painful, especially when it first occurs.
- Constantly using hand or wrist can make the cyst enlarge and hurt more.
- Some hand and wrist movements, such as grasping things, may also be difficult.

How it develops? Look to the figure below

- Wrist and hand are made up of many small bones that meet at joints.
- Tendons attach muscles to the bones at the joints.
- The tendons allow the joints to bend and straighten.
- Both tendons and joints are lined with tissue called synovium.
- This synovium produces a thick fluid that keeps the joints and tendons moving easily.
- Sometimes the synovial tissue balloons out from the joint or tendons and forms a cyst.
- As the cyst fills with fluid and grows, it appears a lump you can feel.

Where ganglion cysts occur?

- A ganglion cyst can occur anywhere on the hand near a joint.
- Cysts most commonly appear on the back or palm side of the wrist, or on the palm at the base of a finger.



INSTRUCTION

'Examine this gentleman's hand.'

APPROACH

Expose to elbows and ask the patient to place his hands palm upwards on a pillow (if available).

VITAL POINTS

Ganglia can occur anywhere in the body, although they are commonly found around the wrist, on the dorsum of the hand and on the dorsum of the ankle. In fact, the most common soft-tissue mass found in the hand is a ganglion.

Inspect

- Usually single
- Hemispherical swelling
- Look carefully for scars (may be recurrent).

Palpate

- Smooth surface
- May be multiloculated
- May be soft and fluctuant (especially if large) or firm (if small with tense, viscous contents)
- Associated with a synovial lined structure such as a tendon or joint
- Weakly transilluminable due to its viscous fluid contents.

Completion

Say that you would like to ask the patient:

- How the ganglion affects their lives, e.g. cosmetic symptoms
- Whether they have noticed similar lumps elsewhere
- Which hand is dominant (considering treatment options)
- Their occupation (also to consider treatment options).

QUESTIONS

(a) What is a ganglion?

- A ganglion is a cystic swelling related to a synovial lined cavity, either a joint or a tendon sheath.
- The origin of ganglia is controversial – they are seen as a pocket of synovium communicating with the joint or tendon sheath, or as a myxomatous degeneration of fibrous tissue.

(b) What is the differential diagnosis?

- Bursae
- Cystic protrusions from the synovial cavity of arthritic joints
- Benign giant cell tumours of the flexor sheath (indistinguishable from flexor sheath ganglia)
- Rarely, malignant swellings, e.g. synovial sarcoma.

(c) How would you treat a ganglion?

- **Non-surgical:** 'watch and wait', or aspiration followed by 3 weeks of immobilization (successful in 30–50% of patients).
- **Surgical:** complete excision to include the neck of the ganglion at its site of origin.

(d) What complications are associated with surgical treatment of a ganglion?

- Wound complications, e.g. scar, haematoma, infection
- Recurrence – can be as high as 50% but can be lower if care is taken to completely excise the neck
- Damage to adjacent neurovascular structures.

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