Ganglion Cysts

Indiana Hand to Shoulder Center

What is a Ganglion Cyst?

A ganglion cyst is the most common mass found in the upper extremity, most often causing a lump that develops in the hand or wrist. These cysts are benign, fluid-filled sacs that develop from the capsular lining of a joint, or from the sheath surrounding a tendon. The following drawings illustrate the most commonly encountered ganglion cysts. (Fig. 1a - 1c)

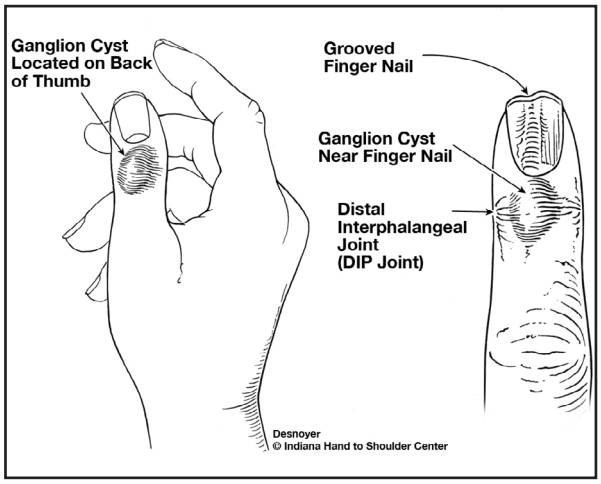

Fig. 1a: A ganglion at the distal finger joint near the fingernail may cause deformity.

What are the causes?

The exact cause of ganglions remains uncertain. The most popular theory is that ganglions may form after trauma or degeneration of the tissue layer responsible for producing the synovial fluid, which normally lubricates a joint or tendon sheath. The cyst arises as this accumulation forms a small sac of fluid, as the fluid is pushed outside of the joint or tendon sheath. Cysts at the level of the distal interphalangeal joint near the fingernail, and

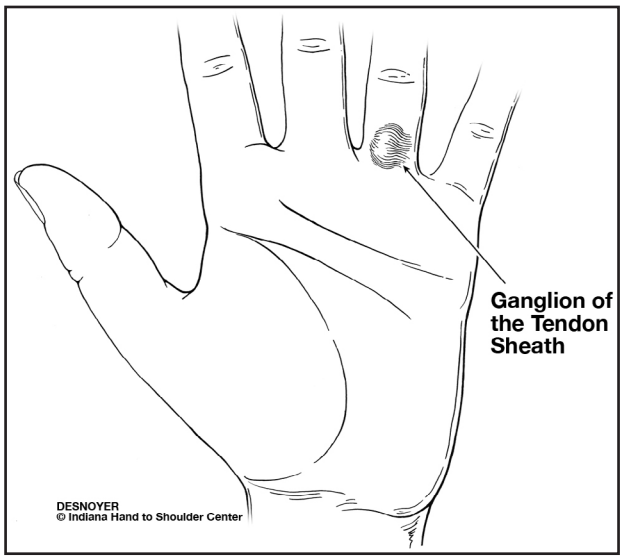

Fig. 1b: Ganglion cysts at the base of fingers develop from the underlying flexor tendon sheath.

cysts found at the base of the thumb may develop in conjunction with degenerative arthritis.

What are the signs and symptoms?

The most common symptom associated with a ganglion cyst is the appearance of a lump. When the cysts first form, they may be painful due to the compression or distension of local tissues. Occasionally in the early phases, the cyst may not even be visible.

Cysts located at the distal interphalangeal joint near the fingernail may create a groove in the nail due to local pressure on the nail matrix. Larger cysts are frequently cosmetically unappealing. Cysts developing at the base of the finger may be painful when gripping.

Ganglion cysts are easily diagnosed visually by their location and appearance. They may be firm or soft depending on the consistency or quality of the fluid contained within the cyst. Occasionally, x-rays will show a degenerative joint that may be associated with the cyst. It is very common for cysts to change in size due to the accumulation or elimination of fluid from within the sac. The cysts do not invade other tissues, nor do they become malignant lesions.

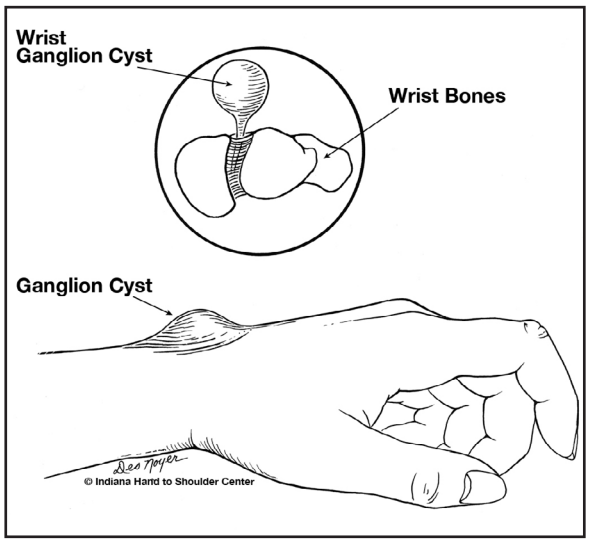

Fig. 1c: A ganglion on the back of the wrist may originate from the wrist joint.

Treatment

Observation is usually indicated for asymptomatic cysts, as some cysts may resolve spontaneously. Additionally, many of the smaller cysts do not cause any problems. Cysts diagnosed early may respond to a temporary period of splinting or immobilization.

Aspiration is frequently recommended. Aspiration, or drawing out the fluid contents using a needle, is used to both confirm the diagnosis and to

treat the condition. The area is first numbed with a local anesthetic, and a small needle is inserted to withdraw the jelly-like fluid from the sac. Compressive dressings and splinting are usually recommended. Aspiration can be used to minimize the symptoms or to avoid surgery, but is only partially successful with an approximately 50% recurrence rate.

Your physician may recommend surgical excision of the cyst. Surgery is a successful procedure performed as an outpatient, with a recurrence rate of less than 10%. The type of anesthetic used depends on the location of the cyst. Most distal cysts can be removed under local anesthetic. During cyst excision, your surgeon will not only remove the sac, but more importantly, the cyst's base (or stalk) will also be removed where it originates from the joint capsule, joint bone spur, or tendon sheath.

Recovery

Following surgery a compressive dressing and a splint may be used. Exercises supervised by an occupational therapist may be necessary especially after removal of a cyst from the wrist area. The expected recovery time following cyst removal is usually 2 to 3 weeks for small finger ganglions and 6 to 8 weeks for ganglion cysts of the wrist.

Indiana Hand to Shoulder Center

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