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Unicameral Bone Cyst

A unicameral bone cyst (UBC) is a fluid-filled cavity found within a bone. It is a benign (non-cancerous) condition. They are usually found in patients younger than 20 years of age. Unicameral bone cysts occur in one bone, in one location. The location of the cysts tends to be in the upper arm (proximal humerus) or thighbone (proximal femur). Less common locations include the pelvis, ankle (talus), or heel (calcaneus).

There is no known cause. Little is known about the development of unicameral bone cysts. There are theories involving a growth defect or disturbance at the growth plate leading to the formation of a unicameral bone cyst. However, this is not completely understood. No preventive measures can be recommended.

Symptoms

Most unicameral bone cysts have no symptoms. Most are discovered incidentally or after sustaining a fracture. Other unicameral bone cysts are not noticed at all.

If a unicameral bone cyst is thinning the bone, there may be pain with weightbearing activities. If there is a pathologic fracture through the cyst, the affected arm or leg may have pain, swelling, and deformity.

Diagnosis

A doctor will be able to diagnose a unicameral bone cyst. He or she may use plain X-rays to show a hollow cavity in the bone. If the UBC is not typical in its appearance, a computed tomography (CT) scan or magnetic resonance image (MRI) may help determine the architecture of the bone.

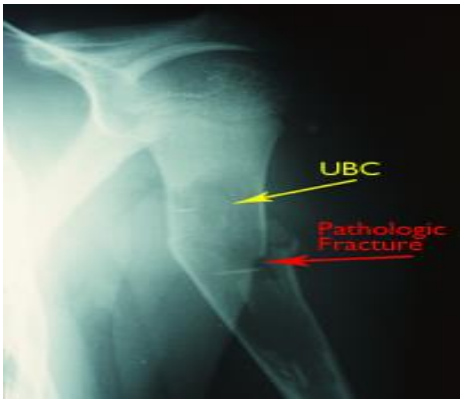
Treatment

Nonsurgical Treatment

A unicameral bone cyst without pain or other symptoms that the doctor discovers when evaluating another problem can often be watched with repeated X-rays and doctor examinations.

Surgical Treatment

Surgery may be needed if the cyst is in a location that might cause the bone to break. Unicameral bone cysts at risk of a pathologic fracture need treatment. If the unicameral bone cyst is painful, growing larger, or in a location that may fracture, the doctor may treat it by draining the cyst (decompression or aspiration) and injecting it with a steroid or with demineralized bone from the bone bank, supplemented occasionally with synthetic materials or bone marrow from the person's pelvis. This method of treatment may require more than one aspiration/injection.



A unicameral bone cyst in a structurally compromising location may need surgery including scraping the inside of the bone (curettage). The hole left following this may require donor bone or a bone graft substitute to fill the defect.

Pathologic fractures occasionally incite a healing process. Depending on the size and location of the cyst, treatment with an internal fixation device may also be needed.