Septic Arthritis

A germ (*bacterial*) infection of a joint is known as septic arthritis. The most common germ causing this is *Staphylococcus aureus*. Other common germs include *Haemophilus influenzae* and Group B streptococcus (common in toddlers). Joint damage results from enzymes produced by the germs and white blood cells (*leukocytes*). The white blood cells are the cells in your blood which try to fight off the infection. Blood vessel (*secondary vascular*) damage may occur from clots in the vessels (*thrombosis*) or direct compression of vessels.

Septic arthritis usually occurs suddenly with rapid onset of joint pain progressing to an illness with a fever which affects the whole body. On examination the joint is:

- Swollen.
- Tender.
- Has limited range of movement.
- Painful.

Your caregiver may use blood tests to help make the diagnosis. The results of these tests will show higher than normal:

- White blood count (WBC).
- C-reactive protein (CRP).
- Erythrocyte sedimentation rate (ESR).

An infected joint in a newborn is often hard to detect. The newborn may show loss of movement of an extremity or hold the joint in one position. Often newborns do not appear as sick as an older child or adult. Fever may be absent and laboratory work may be normal. There may be a history of mild injury to the extremity, a history of illness or an infection. Septic arthritis may follow chicken pox. Dislocation of the hip joint (the hip comes out of joint) may occur, secondary to the effusion (fluid build up in the joint) and infection (so-called Tom Smith's arthritis).

- Early x-rays are often normal except for some swelling of soft tissue around the joint.
- Widening of the joint space may develop with time.
- With time x-rays may demonstrate bone loss or thinning of the bones due to non-use or increased blood supply in the area.
- X-rays may show a joint effusion. Bone scintigraphy allows earlier diagnosis showing localized increased uptake of radioactivity around the joint. Bone scintigraphy is a specialized x-ray that measures the uptake of an injected radioactive material in an area of *inflammation (soreness)*.
- Ultrasound shows the joint effusion.
- Blood cultures may be helpful but joint *aspiration* (removing fluid from the joint) confirms the *diagnosis*. The joint fluid will be cloudy (usually joint fluid is clear) with elevated white blood cells and bacteria (germs) in the fluid. *Culture* (growing out germs) may confirm the pathogen (germ causing the problem) but cultures can be negative in 20 - 30%.

TREATMENT

- Treatment is good drainage of the joint and intravenous *antibiotics* (medications which kill germs).

HOME CARE INSTRUCTIONS

- **Because of the seriousness of an infected joint,** this problem is often cared for in the hospital.
- If circumstances have forced care at home or your caregiver feels home care will be safe, **take all medications as ordered.** Do not stop medications if the problem seems better after a couple days.
- **Take all medications as prescribed** by your caregiver.
- Take temperature two times per day and record. Bring with you to your caregiver.

- You must keep all of your follow-up appointments. Not keeping the appointment could result in a chronic or permanent injury, pain, disability or even death. If there is any problem keeping the appointment, you must call back to this facility for assistance.

An infected joint is a serious problem and even with the best of care can produce life long disability. Follow Directions!

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