

Argus Orthopaedic Zone

Avascular Necrosis: Symptoms, Diagnosis and Treatment

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Transforming patient information into patient understanding.

Last week you learned that Avascular Necrosis is not a rare condition. I'll bet many people have never heard of it, but that is why I am doing this in the first place.

Symptoms

Stated another way, how do you know if you have it? As you learned last week there are 10 risk factors or conditions which almost everyone with AVN has. If you don't have any of the risk factors, it would be really rare to have AVN. Not impossible, but distinctly rare. So risk factors and symptoms are tightly linked.

- Hip Pain in the groin area (occasionally on the outer side which doctors call lateral). Hardly ever in the buttocks. Pain there is usually from the back.
- Knee Usually pain is on the inside or medial aspect. It increases with physical activity. Not usually swollen.

Special Note. Pain in the knee can often be referred from the hip and there is nothing wrong in the knee. I have to check both the hip and the knee.

- Shoulder Pain in the front and/or side of the shoulder which may be present with activities or rest.
- Ankle Aching pain in the front and stiffness present more with weight bearing.
- Wrist Pain on the top of the wrist increased with use.

Natural History

If the AVN lesion is small it can heal itself with time (months).

If it is larger, maybe the size of a quarter, the area won't heal, the joint will become arthritic and the bone will collapse.

Diagnosis

As always I have to take a careful history and do a good examination.

Plain x-rays should always be done first, but are often normal. How can this be? Well, if the condition is in an early stage, plain films don't show it yet. Then I will go to an MRI or a bone scan which will aid greatly in diagnosis.

Treatment

This gets a little complicated because many factors have to be considered. Age, location of the AVN, amount of bone affected, stage of the disease.

Lower Body

Crutches or walker (not a cane) to reduce stress and pressure on the joint.

Upper Body

Avoid heavy lifting and reduce stress on the joint and range of motion exercise to prevent stiffness.

In general there isn't any medication you can take that is going to help the bone "heal". You may need to take Motrin or similar medication for pain.

Surgery

In advanced cases where the bone has collapsed and arthritis has set in, the only treatment is a total joint replacement of the hip, knee or shoulder.

There are several other surgical options which are used if the bone hasn't undergone severe changes yet. They are too technical to consider in any detail here, but I'll list them.

- Osteotomy to reshape the bone to decrease stress on the area
- Core decompression
- Bone graft (transplanting part of the patient's healthy bone to the affected area).

Conclusion

Each case of course is individual and needs to be accurately diagnosed and then I can discuss treatment options with the patient and family. If there is a "take home" point, it is that early diagnosis is the key to successful treatment. See you next time.

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Dr. Haverbush