Argus Orthopaedic Zone

Part Two: Stress Fractures in Women

By Thomas J. Haverbush, M.D.
Orthopaedic Surgeon

Transforming patient information into patient understanding.

Last week's opening discussion of stress fractures was a little technical at times. This week it will not be. I promise.

I will continue by discussing what I look for in diagnosing a stress fracture in the office and what x-ray studies are useful in making the diagnosis. After that there will be a discussion of treatment of stress fractures.

Medical History

The classic history is the gradual onset of pain in a patient engaged in a repetitive activity. If the patient is engaged in a sport or training program, I always ask questions about changes in intensity, distance and activity type as well as the surface the activity is performed on. Also in women it is very important to ask about diet history, weight changes, weight pre-occupation, purging behavior, menstrual history and history of previous stress or fatigue fractures.

Examination

Almost always localized bone tenderness is found and some swelling with a thickening of the covering over the bone (periosteum). You can't feel this structure over the bone normally, but in a stress fracture you might be able to. Muscle weakness and even atrophy might be demonstrated in a stress fracture of the tibia or shinbone. The tibia is a very common place for a stress fracture to happen, although it can occur in almost any bone.

Imaging (X-rays)

In the evaluation of stress fracture plain x-rays are normal during the first two or three weeks of symptoms. Later, a thin fracture line or other more obscure x-ray findings can appear that I am able to diagnose on plain x-rays. If these x-ray findings appear, combined with history and typical physical examination findings, the diagnosis of stress fracture is assured.

But, alas the diagnosis is not always that easy. I may feel stress fracture is present, but x-rays continue to be normal or negative for a

stress fracture. The two additional ways to diagnose stress fracture are bone scan and MRI.

A bone scan involves the injection of a radioisotope into the vein. Technetium 99 is most often used. It is positive if there is an accumulation of isotope on x-ray images in the exact location of symptoms. It accumulates at the stress fracture site because there are many new blood vessels in the area trying to heal the fracture.

MRI is an important option in diagnosis. It can visualize the stress fracture in the bone as well as surrounding tissue edema and other changes. MRI does not cause radiation exposure. It really is up to me to decide which study would give the most information.

Dang, out of time again. Next week - **Treatment of Stress Fracture**.

Want more information? Log on to www.orthopodsurgeon.com our office teaching website, which can take you also to Your Orthopaedic Connection.

Our goal is simple – To help people return to more pain free, functional lives. I specialize in you.

Good health. Good life. All the best to you.

Be well.

Dr. Haverbush