Orthopaedic Connection

Treatment of Stress Fractures

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Transforming patient information into patient understanding.

We have been discussing the problem of stress fractures in women. When it comes to treating stress fractures there are a few different aspects.

**Intrinsic factors**

In women, correcting problems in diet is very important. Menstrual problems must be addressed. If bone mineral density is decreased, it must be treated by the family doctor or internist. Bone mineral testing is readily available and should always be investigated if there is any suspicion bone mineral density might be low. Medically this is referred to as osteopenia, which is a milder form of the dreaded osteoporosis.

**Extrinsic factors**

Treating outside factors takes two directions generally. Training regimens that caused the stress fracture need to be reduced in duration and intensity. A hard surface on which the stress fracture developed usually can not be modified, unfortunately. Footwear can be changed to be more accommodative in most cases.

**Management of Stress Fractures**

In the majority of cases conservative treatment of stress fractures is successful. Some stress fractures however are prone to delayed or non-union. These are femoral neck, tibia, ankle and foot.

**Low risk fractures**

The first phase of management is pain control. Activity modification is necessary to eliminate the activity that produced the stress fracture. Normal weight bearing and day to day activities are encouraged. Cycling, swimming, and water running often allow the athlete to continue to exercise.

When the person has been pain free for two weeks, the sports activity is gradually re-introduced. Therapy modalities may continue. If possible the running surface and footwear should be adjusted.

**High risk fractures**

The most common high risk fractures are of the shin bone or tibia. These fractures can heal and then return when the activity is resumed. A three to six month trial of non-operative treatment is necessary before considering an operation.

Ankle and foot fractures are usually managed in a non walking cast for six weeks followed by a weight bearing brace.

There is a high incidence of surgical treatment in ankle and foot stress fractures that fail to heal with conservative treatment.

**Prevention**

Perhaps this paragraph should have been placed first and all the rest would be unnecessary!

- Eating disorders – avoid training i.e. running until problem is solved.
- Menstrual/hormone problems have to be successfully treated before participation.
- Avoid over training.
Allow rest days.
Use good running shoes probably with orthotics.
If possible avoid hard running surfaces.

If these articles about stress fractures last week and this week can be responsible for avoiding even one stress fracture, it will be time well spent.

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Dr. Haverbush