

Understanding Fibrous Dysplasia

Fibrous dysplasia accounts for about 7% of all benign bone tumors.

1 Introduction

Fibrous dysplasia (FD) is a rare condition which causes healthy bone to be replaced with fibrous bone-like tissue. This weakens the bone and leads to an increased susceptibility to fracturing in the affected area. FD can be found in any bone within the body, and has three different classifications based on the number of bones affected: monostotic (one), polyostotic (multiple) or panostotic FD (entire skeleton). Although it has been determined that FD results from a genetic mutation, the exact cause of the mutation is unknown.

2 Signs and Symptoms

Some patients with FD may not have symptoms. Those who do typically experience the following:

- Pain and weakness in the affected areas
- Bone fractures or breaks
- Bone deformities
- Cafe au lait spots (darkened patches of the skin)
- If facial bones are affected: nasal congestion, uneven jaws or bulging eyes

3 Diagnosis

FD symptoms can be similar to those of other orthopedic conditions. To determine whether a patient has FD, the below diagnostic tests can be administered:

- Biopsy of bone tissue
- Blood and urine tests (levels of certain enzymes and amino acids may be elevated)
- Bone scan
- Imaging tests (e.g. MRI, CT scan)
- X-ray

5 Treatments

Treatment for FD can be separated into two categories: nonsurgical and surgical. Nonsurgical options include bisphosphonates medication as well as utilizing a brace to help prevent fracture in weakened bones. In cases of advanced FD where the condition is causing significant damage to the individual, surgery may be recommended. Curettage (scraping tumors from bone), bone grafts and internal fixation (inserting metal rods/plates and screws to fix a fracture or deformity) are the three common surgical options available to patients. Genetic research is also being performed with the goal of developing more effective nonsurgical treatments.

Did you know?

Fibrous dysplasia affects males and females in equal numbers.

For more information on fibrous dysplasia and supportive resources, please visit www.orthoinfo.org.

References:

<https://www.hopkinsmedicine.org/health/conditions-and-diseases/fibrous-dysplasia>

<https://my.clevelandclinic.org/health/diseases/17902-fibrous-dysplasia#overview>

<https://rarediseases.org/rare-diseases/fibrous-dysplasia/>