Dr. John A. Schlechter
Pediatric Orthopaedics and Sports Medicine

Kohler Disease

Description

- Kohler Disease is a rare bone disorder that affects children, leading to a loss of blood supply (avascular necrosis) of the navicular bone in the foot.
- The tarsal navicular bone is located at the arch of the middle of the foot
    - In children, the navicular bone is one of the last bones in the foot (tarsal) to form (ossify).
    - In girls, it ossifies between 18 to 24 months and in boys from 30 to 36 months. Due to the slow ossification, it is hypothesized to be weaker than the other tarsal bones

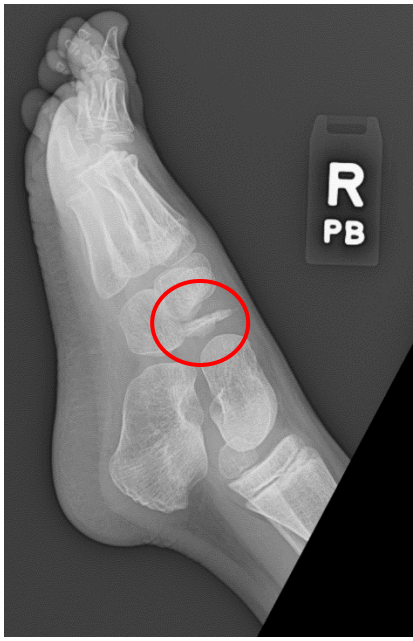
Causes

- The cause of this disease is not fully understood. However, it is suspected that compression of the navicular bone during normal activities or growth causes the bone to lose some of its blood supply.

Risk Factors

- Occurs in young children (Ages < 10) Most seen in males (Ages 4 - 7)
- Typically, only affects one foot (75%), however, can sometimes affect both feet (25%)

Signs and Symptoms



- The symptoms of Kohler disease are typically mild and typically presents with progressive midfoot pain and tenderness along the arch.
- Affected children may demonstrate an associated limp where they walk on the outer edge or lateral aspect of the foot

Diagnosis

- Diagnosis of Kohler disease is primarily made using X-ray that show flattening, sclerosis, or fragmentation of the navicular bone.
- Physical examination may show tenderness, redness, and swelling over the midfoot region

Treatment

- The treatment of Kohler Disease is conservative and non-operative.
- Non-Steroidal Anti-inflammatories NSAIDS (ibuprofen) can be used to manage pain and symptoms. A boot or short leg cast may be prescribed for 4 – 6 weeks. After cast removal, arch supports, or orthotics can be used to transition back to supportive shoes.
- Symptoms generally resolve after 3 months, and children can expect a full recovery without risk of long-term disability.