

The Painless Foot Collapse: Understanding Charcot Foot in Diabetes

Charcot's foot in the diabetic, is also known as diabetic osteoarthritis, it is not uncommon among diabetics whether they are insulin or non-insulin dependent. This condition is very commonly misdiagnosed and improperly treated in diabetic foot. A red, swollen foot with increased skin temperature is often a mistake for an infection (Fig. 7-1).



Fig 7-1



Fig 7-2

Charcot's foot in diabetics is less painful, progressive and of massive destruction of the bones and joints of the foot, especially in the area of the arch of the foot. Due to the massive destruction of structures in the foot, Charcot's diabetic foot resembles a malignant bone tumor. Its appearance also resembles an acute bone infection, but the use of laboratory data and X-rays (Fig 7-2) or MRI of the foot will help establish the exact diagnosis. Since the patient does not experience any pain despite the progressive change in the shape of the foot, diagnosis and treatment can be delayed until the rare foot shape forms. (fig. 7-3).



Fig 7-3



Fig 7-4

The arch of the foot disappears completely and becomes flat and begins to bear weight. A large ulceration of the skin (Fig. 7-4) develops under the arch and further complicates the problem with a threat of infection of the bone and eventually amputation.

The probable cause of Charcot's diabetic foot is mainly neuropathy and trauma. The autonomic nervous system (see Chapter 2) is responsible for controlling blood flow to the foot. Autonomic neuropathy creates increased blood flow to the bones of the foot and removes materials from the bone thereby weakening them. When the weakened bones of the foot bear the weight of the body and stress, gradually there will be destruction of the bones and joints of the foot. Sensory neuropathy (see Chapter 2) is responsible for the insensitivity to pain from the destruction of the bones and joints; therefore the destruction continues without you being aware of any pain. The diabetic person with Charcot's foot continues to walk until the foot becomes totally deformed. This destructive disease process eventually stops and heals but the completely disfigured shape of the foot will not be restored. (Fig. 7-5).



Fig 7-5

Prompt podiatric medical attention is important when you notice gradual swelling, redness, and increased skin temperature on the foot. When this happens, immediately keep weight off of your foot using a crutch until the exact diagnosis is made by your

doctor. It is imperative to exclude the possibility of bone infection and the patient should be treated with a complete non-weight bearing crutches on the affected foot. Crutches or rest may be indicated. Use of CROW boot may be indicated. Failure to diagnose and treat an infection and as a result a leg amputation can be devastating to the patient. Non-weight bearing on the affected foot is absolutely a requirement until the inflammation subsides and the destructive phase of this condition is complete.

TEST YOURSELF

(T F) True or false

1. T F A diabetic Charcot foot occurs only in insulin dependent diabetics.
2. T F A hot, swollen, red foot may indicate you have an infection or Charcot foot.
3. T F A large ulcer under the arch is common in Charcot's foot.
4. T F People with flat feet are prone to developing a Charcot foot.
5. T F A Charcot foot indicates slow progressive destruction of foot bones and joints without any pain.
6. T F A Charcot foot is a common cause of amputation.
7. The T F Treatment of a Diabetic Charcot foot does not put any weight on the affected foot.

1. (F) 2. (T) 3. (T) 4. (F) 5. (F) 6. (F) 7. (F)