How much do we know about Charcot foot?

Geraint Jones is Chairman of the Management Group of Charcot in Diabetes UK

The answer to the question 'How much do we know about Charcot foot?', in brief, is 'Not a lot'. We do not know the cause. We have no specific treatment. The diagnosis is primarily clinical and we do not know how to tell when the disease is entering its quiescent phase.

We know that it occurs in people with neuropathy (and other microvascular complications of diabetes); vascular calcification is common on plain X-ray. We know what an acute Charcot foot looks like (see *Figure 1*), but have no specific diagnostic test. We know that the bones of the foot may or may not be thin before the process starts, but that they become progressively osteoporotic as it develops. We know that the mainstay of management is immobilisation and weight-sparing, but we also know that it can take a long time before the inflammatory process settles down and patients can get back to walking.

There is no specific treatment, and, although bisphosphonates may help, no data have been published on long-term outcomes. The foot often ends up deformed, sometimes grossly, and secondary ulceration (with the risk of infection) is quite common. Gross deformity and osteomyelitis may result in loss of the leg and one centre has reported a surprisingly high mortality, although this is not the general experience.

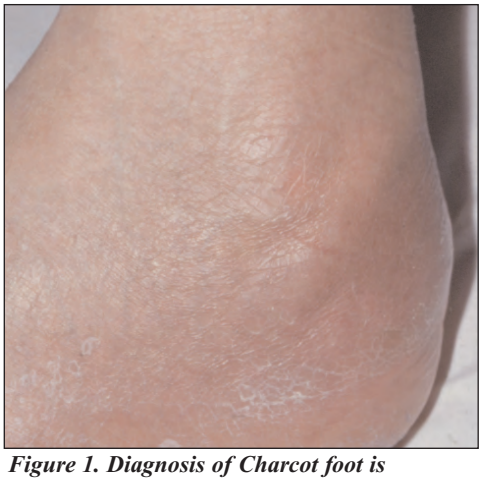

Figure 1. Diagnosis of Charcot foot is primarily clinical and there is no specific treatment available at present.

On the other hand, we do not know what causes the condition, and we do not know why it is so rare – affecting only about 1–2% of all people with neuropathy. We cannot predict who will get it. We are also not always sure if we can manage to distinguish Charcot from osteomyelitis (especially in the forefoot). We do not know how long it will take any one person to get better. We do not know how to tell if the process is finally settling and the bones are entering the coalescent phase, and when it is safe to allow a patient to go back to normal walking. We do not know who will get Charcot on the other foot, and when.

A possible answer

It is for reasons such as the ones outlined above that the new collaborative network, Charcot in Diabetes UK (CDUK), has been formed (see page 8 for details). The aim is to collate the experience of as many clinicians as we can, and to see if we can get a more comprehensive picture of this rare, but fascinating, disorder. At the same time, there are great advances being made in the field of biochemistry of both bone and blood vessels, and these are giving new insight into the processes which may be involved in the cause of the Charcot foot. This, in turn, could lead to possible new treatments and if – through CDUK – we have been able to establish a thriving network of interested professionals, we should then be able to pool our resources in order to do the necessary prospective studies to prove that the new treatments work. ■

CDUK Management Group