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Recent Acute Form and Chronic Charcot Arthropathy Affecting Both Feet in a Type 2 Diabetic Patient (Case Illustration)

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Background and aims: A 49-year-old type 2 diabetic patient with a chronic form of Charcot arthropathy and recidivant neuropathic foot ulcers on his right foot, presented with an acute contralateral Charcot arthropathy and a midfoot superficial plantar ulcer in February 2006. Immediate treatment with a plaster cast resulted in ulcer healing. An attempt to stabilise the condition has already been made in 2003 but was unsuccessful.

Patient, methods and results: The patient had type 2 diabetes diagnosed in August 2000 when he presented with a superficial neuropathic ulcer on his right foot. With off-loading and normal saline dressings the ulcer healed in 3 months. Good metabolic control was achieved with DIA 7,5 MJ diet and acarbose (fasting blood glucose 5,8 mmol/L, HbA1c 5,1 %). Serum lipids, blood pressure and renal function were normal. Acute phase of Charcot arthropathy began to manifest in June 2002. ESR, CRP and white blood cell count were normal. X-ray showed no significant changes. Scintigraphy with marked leucocytes confirmed an acute process. CT scan showed narrowing of the 1st and 2nd metatarsal joint spaces, subchondral sclerosis, cystic deformation and oedema of surrounding tissues. Immobilisation with a plaster cast temporarily stabilised the process, but 4 months later the foot was again swollen, deformed, the range of plantar flexion was limited. X-ray showed shaded structures of 1st metatarsal and cuneiformis bones, with joint destruction. In July 2003 the process deteriorated and mid foot ulcer recurred despite off-loading with a plaster cast. P. Shelby's pamidronate scheme and off-loading in an air cast diminished the symptoms and enabled ulcer healing. The patient has been stable until February 2006, when he presented with an acute form of Charcot arthropathy on the contralateral foot. The same diagnostic and therapeutic approach as before for the right foot, was implemented. At the moment the patient is wearing an air-cast on his right foot with the chronic form of Charcot arthropathy as well as a plaster cast on his left foot with an acute form of the disease, and tolerates the two off-loading devices well. **Conclusions:** Charcot arthropathy is a complex disease which significantly affects the patient's quality of life and poses a major threat to the affected extremity. Treatment is difficult and the results are unpredictable. Adequate off-loading is necessary to prevent the occurrence of foot ulcers. Pamidronate therapy and air casting have postponed the progression of the process and enabled greater mobility of our patient. Unfortunately, this beneficial effect has lasted for only 3 years.