

Neurological foot conditions

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Pes cavus The development of unilateral pes cavus is likely to be due to an upper motor neurone lesion, so an appropriate neuro logical examination should be performed and spinal imaging is mandated. Pes cavus is usually bilateral and most cases will be associ ated with an underlying neurological condition, the most com mon being Charcot-Marie-Tooth disease. These patients may pr esent with characteristic progressive small muscle wasting, thin calf musculature, hand symptoms, aches and pains, and cavovarus feet. Examination may show early loss of vibration sense. Precise diagnosis is confirmed with nerve conduction studies and genetic testing. The key deforming force is always relative preservation of the tibialis posterior tendon. Surgical correction of the deformity is often required. The principal goal of treatment is to obtain a foot that can be placed flat on the ground, and with the pow er of the muscles around the ankle in balance. It will always be necessary to transfer the tibialis posterior tendon. The most commonly performed pr ocedure is to transfer the tibialis posterior tendon to the dorsolateral side of the foot, with a lateralising heel osteotomy and dorsiflexion osteotomy of the first ray with or without a Jones procedure to the great toe and Hibbs procedure to the lesser toes. Older textbooks all universally relay the mistaken belief that it is peroneal over- activity that is the deforming force ... it isn't!

Summary box 41.8 Pes cavus /uni25CF /uni25CF /uni25CF /uni25CF Pierre Marie , 1853–1940, neurologist, Hospice de Bicêtre, Paris, France, later becoming Professor of Pathological Anatomy in the Faculty of Medicine, and finally , in 1918, Professor of Neurology . Howard Henry T ooth , 1856–1925, physician, St Bartholomew's Hospital and the National Hospital for Nervous Diseases, London, UK, described peroneal muscular atrophy in 1886 independently of Charcot and Marie. Sir Robert Jones , 1857–1933, British orthopaedic surgeon. Russell A Hibbs , 1869–1932, Professor of Orthopedic Surgery , Columbia University , New Y ork, NY , USA, described an operation for 'claw foot' in 1919. Georg Ledderhose , 1855–1925, German surgeon, described this disease in 1894. Baron Guillaume Dupuytren , 1777–1835, surgeon, Hôtel Dieu, Paris, France, described this condition in 1831. François de la Peyronie , 1678–1747, surgeon to King Louis XIV of France and founder of the Royal Academy of Surgery , Paris, France. - - -

Pes cavus needs neurological investigation About 80% of cases of pes cavus are associated with a neurological disease The commonest cause is Charcot-Marie-Tooth disease Unilateral pes cavus – think diastematomyelia/tumour Figure 41.10 Angioleiomyoma of the hallux.

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