

Ming-Shium Hsieh, MD, PhD
Department of Orthopedics and
Traumatology, Taipei Medical College
Hospital, Taipei Medical College

Clinical Experience with Morton's Toe

Key Words

Morton's toe
Entrapment
Excision
Diagnosis and management scheme

ABSTRACT

Morton's toe, a type of metatarsalgia, is characterized by pain beneath the metatarsal head region and is most often caused by entrapment under the intermetatarsal ligament. Aggressive conservative treatment is the preferred initial management, and consists of fitting the patient with a wide, soft shoe to provide metatarsal support, and local steroid injections. Morton's toe can usually be treated successfully with conservative treatment. If conservative treatment fails, the neuroma can be excised through a dorsal or plantar approach. In this study, I propose a new scheme for diagnosis and management of Morton's toe, and describe the operative treatments and outcomes of 12 patients with subsequent histologic confirmation who were treated according to this scheme. The right foot was involved in 8 of these patients and the left foot in 4. In all cases, pre-operative examinations began with history taking and the lateral squeeze test. Patients with positive results on the squeeze test ($n = 5$) were treated surgically only after conservative therapy had failed. Those with negative lateral squeeze test result ($n = 7$) underwent magnetic resonance imaging and sensory action potential evaluations under strict diagnosis; patients with a positive result on either of these underwent surgery after failure of conservative treatment. The neuroma was excised through the dorsal approach with extension of the proximal nerve trunk and 2 distal digital nerve branches. Subjective assessments of treatment outcome were good or excellent in all cases, and histologic examination confirmed the preoperative diagnosis in all. These results support the feasibility of the proposed scheme for differential diagnosis of Morton's toe from Morton's toe-like diseases such as bursitis and diabetic neuritis. (N. Taipei J. Med. 2000; 2:137-144)

INTRODUCTION

Morton's toe is characterized by severe pain at the intermetatarsal head, especially between the third and fourth metatarsal space;¹ the lesion is located between the third and fourth metatarsals 5 to 7 times more often than between the second and third metatarsals. This

syndrome also has been described as Morton's metatarsalgia, neuroma, and neuralgia,² and is characterized by painful swelling of the proximal part of the nerve branch. The pain related to Morton's toe is due to the formation of a neuroma,³ which may be secondary to abnormal biomechanics, entrapment neuropathy, neuritis caused by trauma, neoplasms, variations of