

Morton's Neuroma

Introduction

Morton's neuroma is a very common foot condition and is formed through repeated impingement and compression of the plantar digital nerve. The nerve thickens where it branches into the lesser digits. This fibro fatty accumulation may eventually interfere with sensory signal into the digits. It commonly affects the 3rd and 4th intermetatarsal space. Those affected may describe the pain as a burning, tingling or shooting pain in this area and the associated digits themselves.

Description of the condition is often vague in the initial stages however as the neuroma enlarges more acute localised discomfort and clicking can be described. Patients will often mention removing footwear and massaging the foot to relieve symptoms.

Hypermobile foot types and the wearing of ill fitting or high heeled shoes can also contribute and aggravate the condition causing the nerve to swell and compress in the metatarsal web space. A wider foot is more commonly associated and therefore the bunion sufferer is a frequent patient you will see.

Examination

There are 5 common tests/signs that you can perform to help diagnose Morton's Neuroma.

1. Mulders sign - compression of the space between the metatarsals (a) Whilst applying direct plantar pressure to the area can reproduce pain (b) Whilst doing the above - there is a palpable click/clunk which is known as the "Mulders click".
2. Tinels sign - shooting pain into the toes whilst directly compressing the web space as above.
3. Gauthier's Test - +ve if squeezing the metatarsals together and moving the affected toes up and down for 30 sec's reproduces symptoms.
4. Digital nerve stress test - ankle in a dorsiflexion position whilst the lesser toes on either side of the affected web space are extended in full. +ve if pain or if symptoms reproduced.
5. Sullivan's Sign is positive when weight bearing and the affected toes spread apart

Treatment

Conservative treatment should be initially trialed given that many neuroma's are asymptomatic. Clinical symptoms are often obvious however an Ultrasound scan may be appropriate if in doubt.

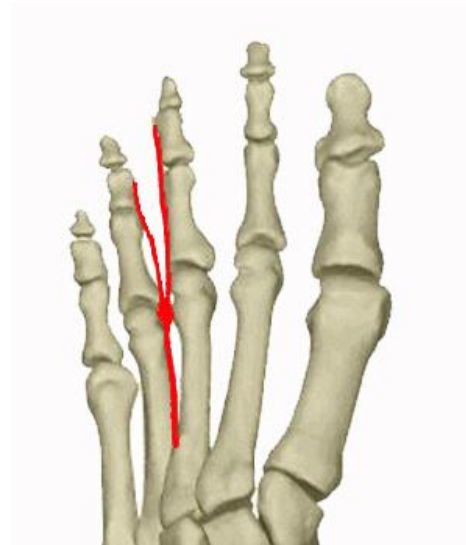
Reducing compression or load to the immediate area as well as reducing inflammation. The use of ICE, rest

from activity, footwear modification (wider shoes), and padding can often offer immediate relief.

The use of a small dome or "neuroma pad" to spread the metatarsals reduces pressure on the nerve and can be very effective. Strapping to support the foot as well as the use of orthotics can also "off load" the neuroma.

Generally speaking if initial conservative treatment fails then the infiltration of corticosteroid with local anaesthetic around the neuroma can be extremely effective. If no ultrasound examination has been performed by this stage then consider a cortisone under U/S guidance as this will also confirm your diagnosis.

If symptoms persist then a surgical neurectomy may be required. It is important to know that this condition can recur even after neurectomy surgery



The most common location of a Morton's Neuroma

Take home messages

- Check for the 5 signs on examination
- Pain occurs on wearing tight fitting or heeled shoe wear and worse with activity
- Assess footwear
- Padding can help off load nerve pressure
- Orthotic therapy - correction of alignment & cushioning
- Hydrocortisone in recalcitrant cases
- Surgical Neurectomy in recurrent cases or failed conservative treatment