·经验交流·

多发性趾间神经瘤 2684 例

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【摘要】 目的 回顾 10 年治疗 2684 例多发性趾间神经瘤的临床效果。方法 趾间神经瘤的诊断依据是趾间痛,跖骨无压痛,趾跖关节活动也无痛,前足压挤试验可引起趾间向远端串痛。2684 例多发性趾间神经瘤中,2636 例合并有 外翻(HAV)。保守治疗 1586 例,手术治疗 1098 例(969 例同时在第 2、3 趾间隙切除神经瘤,129 例分 2 次进行)。结果 平均随访 4 年,除 7 例手术治疗的病人疼痛未消失,其余都疼痛消失,疗效满意。结论 多发性趾间神经瘤多并发有 外翻,保守疗法可以治愈。当保守治疗无效时,可用手术疗法切除。

Multiple interdigital neuromas A retrospective study of 2684 cases seen in the last ten years

As of 1986 to 1995, 2684 cases involving neuromas were treated in this clinic, which accounted for 23% of the total number of 11, 686 patients suffering from various kinds of podiatric conditions treated in the same period. There were 1959 (73%) women (age range of 16~ 96 years) and 725(27%) men(age range of 20~ 90 years.) The majority of the patients were in the age range of 40~ 50 years. The total number of neuroma excisions carried out in the past 10 years was 1098. All the excised specimens were confirmed by pathological examination. More than 60% of the cases reviewed had bilateral involvement, which were associated with HAV and forefoot trauma due to improperly fitting shoes. All of the male cases had history of forefoot injury or wearing western style boots. Some were driving standard transmission automobiles. The majority of them had HAV along with the neuroma symptoms. After 1992, when excisions of neuromas were carried out in two seperate surgical settings, confirmatory diagnosis was always alicited prior to the second surgery. Continual forefoot pain after the first surgery was definitive.

1 Diagnosis

The diagnosis of interdigital neuroma was based on both subjective and objective findings. The subjective complaints consisted of pain in the ball of the foot, sharp and isolated shooting pain in the second, third and the fourth toes, tingling in the toes, pain in the ball of the foot during walking barefoot, pain in the toes wearing shoes with heels, pain at night in the toes, pain in the third interspace upon removal of the shoes, pain in the third toe when driving, pain relieved temporarily by massage, cramps in the toes, more pain when standing or walking in the toes, and more pain in the third and fourth toes when the shoes were on the feet. The objective findings were sharp pain elicited on palpation of the interspaces involved, no pain on the range of motion of the digits at the MPJ level, no pain on direct palpation of the metatarsal heads, positive Mulders signs in most of the cases and positive Sullivan's sign on the X-ray films in about 10% of the cases.

All of the male cases had history of forefoot injury or wearing western style boots. Some were driving standard transmission automobiles; the majority of them had HAV along with the neuroma symptoms.

2 Treatment

Cases with the neuroma surgery performed were all treated initially with conservative means including steriod/B_{12} combination injections in a series of 2~ 3 shots two weeks apart. Appropriate metatarsal padding accompanied these injections. Ultrasound therapy was also used in the majority of cases. Surgery was only performed after failure of conservative treatment. Prior to 1992, simultaneous neuroma excisions were performed in cases involving symptoms in which both interspaces and no complications were observed. After 1992, according to the malpractive insurance guidelines, the surgeons were advised to perform neuroma excision in different settings for cases with involvement of both the second and the third interspaces; waiting for a period of 1 week to 6 months of observation in between the two neuroma excisions were required in order to avoid vascular problems of the third toe.

The excisions of neuromas were carried out under local infiltration anesthesia, using a tourniquet and a dorsal linear incision over the involved interspace. After excision of the lesion, no internal sutures were used and the skin was closed with horizontal mattress sutures. Gauze packing drains were used for 24 hours after the surgery. The foot was wrapped with compressive coban dressing.

3 Results

All the cases operated upon for multiple interdigital neuromas were followed-up for a period of 1~ 10 years with an average of 4 years. Among the 1098 cases treated with surgery, only 7 cases did not have pain free results. All other cases were pain free and were satisfied with the surgical results. Cases with excision of neuromas in both the second and the third interspaces had expected numbness of the third toe; however all reported that the feeling was decidely better than the previous neuroma pain.

Five cases had complications of hematoma or infection of the surgical wound and were treated appropriatily yielding satisfactory results eventually.

4 Discussion

Historically one was taught that neuromas usually occured in an isolated interspace, usually the third interspace. Up to 1983, only four cases of resection of two neuromas in a single foot were reported separately by Bradley and Mann et al. Before the surgical decision of resection of multiple interdigital neuromas, other causes of multiple web space pain must at first be ruled out. These include peripheral neuropathy, double crush syndrome, tarsal tunnel syndrome, metatarsphalangeal joint pathology, such as arthritis, synovitis, dislocation, and Frieberg's discase[1,2]. Baxter D. E et al, in 1996, reported 15 cases(19 feet) of simultaneous surgical excision of two primary interdigital neuromas in adjacent web spaces of the foot. Their results indicated significant pain relief in 84% of the patients, which is similar to the results obtained from resection of a single neuroma. There has been skepticism about the existence of two neuromas in a single foot. However, according to our observation, adjacent neuromas do occur and surgical interventions is required if conservative treatment fails to alleviate the pain. More often than not, neuroma pain results from nerve involvement with both the second and third interspaces and not just the third interspace as previously reported by various authors in the literature. Neuroma symptoms were usually found in patients who also had clinical evidence of HAV. This results in the forefoot being wider than the rearfoot. Shoes are improperly designed and fitted where the front of the shoe is not accomodating the HAV deformity while at the same time addressing the narrow rearfoot. The compromised fit results in constant microtrauma to the forefoot while wearing shoes. The squeezing of the forefoot in the shoe in order to compensate for the narrow rearfoot puts more pressure on the proper digital nerves. Heel height is an addition to the microtrauma in that it pushes the weight even more to the forefoot and the ball of the foot as the toes are squeezed even more than in a flat shoe. Women shoes have historically been designed to accentuate the squeezing of the forefoot and the microtrauma exerted on the proper digital nerves. Release of the intermetatarsal ligament alone is effective in the treatment of interdigital neuromas[3].

References

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参麦注射液对脂肪栓塞综合征的影响

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1995~ 1997 年我们在西药支持治疗基础上, 合用参麦注射治疗脂肪栓塞综合征(fat embolism syndrome, FES) 15 例, 取得了一定的效果, 现报告如下。

1 临床资料

1.1 病例选择 所有 FES 病人按发病次序随机分成两组: ①参麦组 15 例, 男 10 例, 女 5 例, 年龄 22~ 75 岁, 平均 42.52 岁。其中多发闭合骨折 12 例, 人工关节置换术后 3 例。计骨盆骨折合并: 髋臼骨折 1 例, 股骨及胫腓骨骨折 2 例, 肱骨及肋骨骨折 1 例, 多处肋骨骨折 2 例。股骨干骨折合并: 多处肋骨骨折 2 例, 胫腓骨骨折 1 例, 髌骨粉碎及同侧尺骨骨折 1 例, 前臂双骨折 1 例。肩胛骨合并同侧腕骨、锁骨骨折 1 例; 单侧人工股骨头置换 1 例(骨水泥型), 单侧全髋置换 2 例(骨水泥型)。②对照组 12 例, 男 9 例, 女 3 例, 年龄 18~ 69 岁, 平均 41.12 岁。其中多发闭合骨折 9 例, 人工关节置换术后 3 例。计骨盆骨折合并: 髋臼骨折 1 例, 多处肋骨骨折 1 例, 股骨颈骨折 1 例, 胸腰椎压缩性骨折 1 例, 肱骨骨折 1 例。股骨干骨折合并: 跟骨粉碎性骨折 1 例, 胫腓骨骨折 1 例, 多处肋骨骨折 1 例, 双侧尺桡双骨折 1 例; 单侧人工股骨头置换 2 例(骨水泥型), 单侧全髋置换 1 例(骨水泥型)。同时选用健康人 10 例, 男 8 例, 女 2 例, 作为健康组对照。

1.2 临床表现与诊断 所有脂肪栓塞综合征按目前国内外沿用的 Sevitt 分类。完全型 FES 按 Gurd 标准诊断, 不完全型 FES 则按 Mccarthy、鹤田等[1,2] 提出的 $PaO_2 < 9.33kPa$ (70mmHg) 即有临床意义的基础加上 Gurd 标准中的次要指标来诊断。完全型 FES: 参麦组 5 例, 对照组 4 例。临床症状: ①脑症状。伤后或术后 24~ 48h 表现不同程度的意识障