Keywords: Amputation; Hyperhidrosis; Botulinum toxin; Mesotherapy; Intradermal injection; Intercutaneous injection.

Introduction.—Lower limb amputee patients can suffer from residual limb hyperhidrosis with functional impairment treated with Onabotulinumtoxin A intradermal injections which may be painful. To reduce pain, we propose to use intercutaneous injections (a quite painless mesotherapy technique).

We report the case of a transbifemoral amputee who benefited from the two techniques, which we compare.

Observation.—A 37-year-old transbifemoral amputated patient presented a severe hyperhidrosis requiring to take off prostheses to dry it.

First technique: transdermal injections (100 units Onabotulinumtoxin A diluted in 4 mL of saline solution, distributed on the zone covered by the sleeve, in 40 points).

Second technique, 10 months later, because of hyperhidrosis relapse with functional impairment: intradermal injection (same protocol).

The D0 and M2 evaluation for each injection shows:

- "VAS pain during injection": 80/100 with intradermal injections; 8/100 with intercutaneous injection;

- "VAS quantity of sweat": declining by 83% with intradermal injections (VAS: 15 at M2), by 37% with onabotulinumtoxin A injection (VAS: 25 at M2);

- "VAS discomfort associated with sweat": declining by 89% with intradermal injections (VAS: 10 at M2), by 47% with onabotulinumtoxin A injection (VAS: 25 at M2);

- with both techniques: no more need to take off prosthetics to dry it, Subjective Improvement Felt: 60%.

Discussion.—The topical technique seems interesting, bringing a clear decrease of pain during injections and satisfactory functional results.

The improvement percentage of hyperhidrosis evaluation criteria seems less important with the interdermal technique. But, during this injection (unlike during the intradermal injections), the patient applied local aluminium salts and possibly still had benefits from a residual effect of the preceding Onabotulinumtoxin A treatment.

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Prospective study: Evaluation of the thermolanced foot orthoses effects

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Keywords: Foot orthoses; Foot evaluation; Pain; Functional and pain index.

Objective — Thermolanced foot orthoses are usually prescribed for various pathologies to improve foot function and to relieve the pain. Few studies have evaluated their conditions of use and their effects. The aim of this study was to evaluate their effects on the experience of pain and the functional abilities with a foot function and pain index (FFPI) measuring functional discomfort (12 items) and foot pain (eight items) [1].

Patients and methods.—Two hundred and twenty voluntary patients were divided into five pathological groups: metatarsalgia (M, n = 77), gonalalgia (G, n = 43), low back pain (L, n = 45), plantar aponeurosis (A, n = 38) and calcaneus tendinosis (T, n = 17).

Thermolanced foot orthoses were realized from OPTIK (Thermoformed Composite Plantar Orthosis) after a pedicure examination. Participants were asked to complete the FFPI questionnaire during the first day of the examination and in between the sixth and ninth week, as well as another questionnaire regarding the wearing of orthoses in terms of hours per day.

Results.—It was reported that 70% of participants were wearing the orthoses at least 6 h per day at the exclusion of the low back pain group whose the half reported using them 6 h per day and the other half, 2 h a day. For all groups, statistical analysis shows significant decreases of functional discomfort (F) and foot pain (P) scores of the FFPI. More precisely, these decreases were noticed for 87% of metatarsalgia participants (P and F: P < 0.01), for respectively, 84% and 90% of gonalalgia (P: P < 0.05; F: P < 0.01) and plantar aponeurosis groups (P and F: P < 0.01), of 70% for the calcaneus tendinosis group and only of 52% for the lower back pain group (P and F: P < 0.01).

Discussion.—Participants reported that the thermolanced orthoses had improved their functional abilities and decreased foot pain. These effects could partly be related to a better plantar load distribution.

Reference


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Technical and smart fabrics fibers orthosis for recurratrum knee in hemiplegic patients

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