CLINICA PODOLOGICA

Orthotic of Discharge

(Part one)

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Generalities

In our daily practice we are often confronted with the complaints of our patients concerning their malaises while walking or standing. The metatarsalgia or pain in the anteroplantal zone of the foot means a high percentage of these painful and hyper keratinazed affections.

The plantar keratosis , due to its hard consistency acts as a surface of resistance against the oppressive action of the metatarsian heads, increasing the kerastatic layer and also the pain when walking. To allow a better working and social life of the patient enduring the pain of this disease, the regular care of a podiatrist is necessary, as well as the use of a specific orthopedic insole and an antialgic orthotic for the forefoot.

The goal of the orthotic or insoles of discharge is not meant to correct this morphostatic disease of the foot, but only to alleviate or diminish , or even the pain disappears, permitting the security of the motion and increasing its perimeter.

The insoles of discharge are used in:

- Hyperkeratosis (calluses, callosities, traumatic papylomae),painful scares or perforated plantar disease(diabetic foot).
- Osteoarticular metatarsus phalanx pain (hallux rigidus), instability syndrome of the second radius, fracture caused by stress, etc.).
- Whenever the metatarsus zone needs rest.

This plantar insize modifies the distribution of the efforts of the forefoot during the phases when being supported by the plant and the toes. (plantigrade and digitigrades). Its action diminishes the intensity of the charge of one or several capitometatarsal zones, permitting the other heads, disposed for the support, to undertake the weight. The origin of the painful malaise is the excessive localization of them. The discharge may be retrocapital and subcapital matatarsian elements, depending on their requirements.

PLANTAR 0RTHOTICS IN VEIN DISORDERS.

Remember: Two motors make vein circulation possible:

*The tonus and the contractibility of the vein system
*The muscular contractions that compress the deep veins in their aponeurotic capsule, specially during the walk.

There is also a valve system opposed to the blood reflux. So, when the veins are compressed, the blood can only flow ascending to the heart.

The origin of the so frequent varicose dilatations is a product of a vein stasis due to the inability of the valves or if the muscle's action does not normally function.
The start of the vein circulation is the foot, the farthest and most downward declined zone regarding the heart. Its dorsal zone presents an important superficial net, that can be abnormally compressed by a tight footwear at the end of the day. The plantar net, constituted by the Lejars vein plexus, should act as a real **sponge**. Its decompression allows it to be filled, and then its compression when pressing the plant on the ground, expels and refuses the underlaying blood column. This filling and expulsion phase is only correctly possible if the foot doesn`t loose its flexibility and its normal articular activity.
The static and antialgia (metatarsalgia) disorders will determine the malfunction of muscles and articulations.

There is another obstacle for the free and normal blood circulation ,originated by the tension of the annular and lateral internal ligaments due to a valgus or an oedema at the level of the calcaneum channel , an anatomic place that presents deep veins and arterial prolongations.

Basic principles in orthotics

The purpose of the discharge insize is to help the vein return and to avoid the vein and lymphatic stasis and its consequences.
An internal rising in the insize will permit a micro massage with every step of the plant arch thus increasing the natural effect of expulsion pump of the vein net. It is possible to improve the insize with other elements of discharge, depending on the disorder associated to hyper pressure of the foot.

Plant discharge orthotics in neurotrophical ulcers

To remember: The neurotrophical plant ulcers may be treated because of:

-general cause ,responding to etiologic medical treatment (diabetes, medullar or peripheral neurological disorders, vascular injuries, infections, etc.).

-local cause, of mechanical origin, demanding orthotic treatment.

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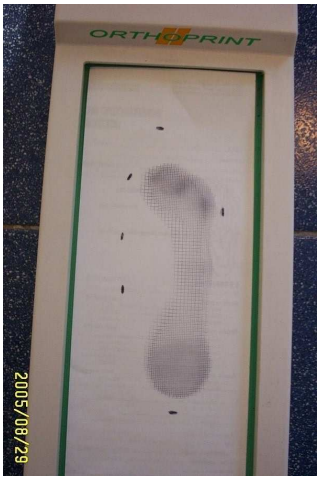
Objective Goals:

The objective of the plantar orthetics is to avoid the direct contact of the ulcer zone originated by a hyper pressure of the support.

The use of a discharge element (foamrubber, ,plastazone, micro porous rubber, pelte, etc.) around the wound will permit the activation of the blood circulation in each step by micro massage of the tissues.
Considering other plantar zones equally affected, the use of resting discharge y possible by simply using an foamrubber element or other materials. Common sense will always be to consider the moment of modifications to benefit the recovering of the tissues and the hyper pressure caused by the effort`s increase of the affected foot.

Considerations

We must not forget that the ulceration presents a permanent lymphatic suppuration while affecting the comfort, supposes maintenance problems of the insoles as well as of the foot wear. A synthetic coating , humidity resistant should be preferred instead of leather.



If the treatment of these disorders are etiologic and medical, a clue for a good and lasting result is to find in the use of an orthopedic discharge insole that isolates and re establishes a "normal" plant static. The podiatric treatment is therefore vital.

Orthopodriatric treatment with an initial orthopedic discharge insole to recover the loss of the internal longitudinal plant arch support , diminishing the pressure at the fore-foot level.

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