Commentary

Compression therapy beyond venous leg ulcers

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The inflammatory process inherent in any leg wound involves an alteration in the microcirculation, with greater capillary filtration, and, because of the force of gravity, an increase in intravascular pressure. Therefore, despite the absence of reflux or an obstructive cause, a state of venous hypertension may develop, making healing difficult. The term ‘hydrostatic ulcers’ has been proposed to refer to leg wounds of different aetiologies that meet this condition1. This group includes wounds in patients with obesity and immobilisation issues, traumatic wounds and atypical wounds (e.g., vasculitis and occlusive vasculopathy). Moreover, it is not uncommon for a patient to present several of these predisposing conditions together1,2. Even if a recent review concludes that only limited evidence has been published to support the use of compression for non-venous leg ulcers3, the experience in the clinical practice for traumatic ulcers and atypical wounds due to Pyoderma gangrenosum, Necrobiosis lipoidica, vasculitis or Martorell ulcer shows that it promotes wound healing1,2.

The effects of compression therapy on leg wounds are, among others, decreased capillary filtration, increased local lymphatic drainage, reduction of inflammation and increased arterial flow. These benefits may justify the recommendation to use compression therapy, provided it is not contraindicated, in any leg with a wound1,3,4.

A relevant question is: Which then are the contraindications for compression therapy? As a principle, pressure exerted externally and continuously must not exceed the intra-arterial and arteriolar pressure. This is why it has been established that compression therapy is contraindicated if the ankle-brachial index (ABI) is less than 0.65. However, patients with mild peripheral artery disease may benefit from compression therapy. In fact, increased arterial flow has been shown in these patients with the use of high stiffness bandages or pneumatic compression devices6. In this context of understanding the benefit of compression therapy as the best anti-inflammatory and anti-gravity treatment for leg ulcers, an expert consensus has come to establish only these three situations as contraindications for compression therapy – severe peripheral artery disease, severe cardiac insufficiency, and compression of epifascial arterial bypasses5.

Consequently, in addition to the increasing spectrum of indications for compression therapy, even traditional contraindications such as cellulitis have become indications for compression therapy. A recent study has shown that the initiation of compression therapy synchronous to antibiotic therapy, in addition to not increasing the risk of infection spread, reduces inflammation, oedema and thus may reduce the risk of secondary ulcers7.

Generalisation of compression therapy, adapted to the needs of each patient, and always adjuvant to the accurate aetiological treatment of each leg ulcer, might have a great impact on accelerating wound healing8.

REFERENCES