

The Use of a Dual Compression System (DCS)* in the Management of Lymphedematous Legs, a Case Series.

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Introduction

In a busy vein clinic, many patients present with lymphedema. More often than is recognized, the condition also coexists with the condition of venous reflux. This combination of venous reflux with lymphedema is termed phlebolympedema, a condition more severe than venous reflux alone, and may or may not be accompanied by a wound. With the new indication of lymphedema now available for the DCS product, we evaluated the effectiveness of the DCS product on 23 patients with painful bilateral leg lymphedema and/or phlebolympedema after a single application of the system..

Methods and Materials

We reviewed 23 patients (46 legs) with varying stages of previously diagnosed lymphedema (Fig 1 and 2), who were treated with the DCS product (Fig 3). Patients were seen for follow-up an average 3.96 days after initial application of the DCS system. Measurements at the widest part of the calf, ankle, and midfoot were taken on Day 1 and on follow-up visit. Measurements were taken at the same anatomical and numerical landmarks unique for each patient for both visits. Patient pain experience was assessed at each visit via the pain visual analogue scale

Methods and Materials



Figure 1



Figure 2

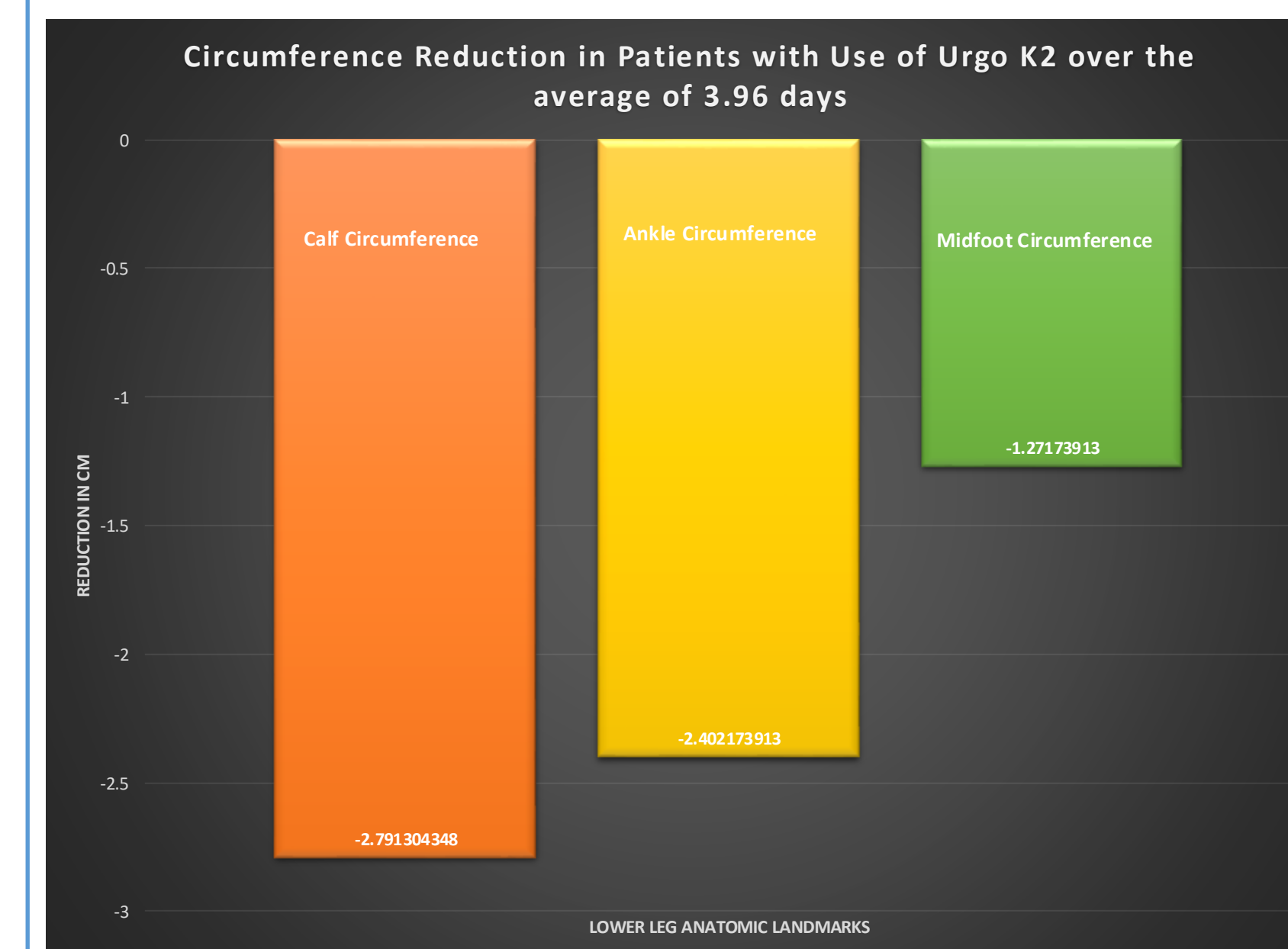


Figure 3

Results

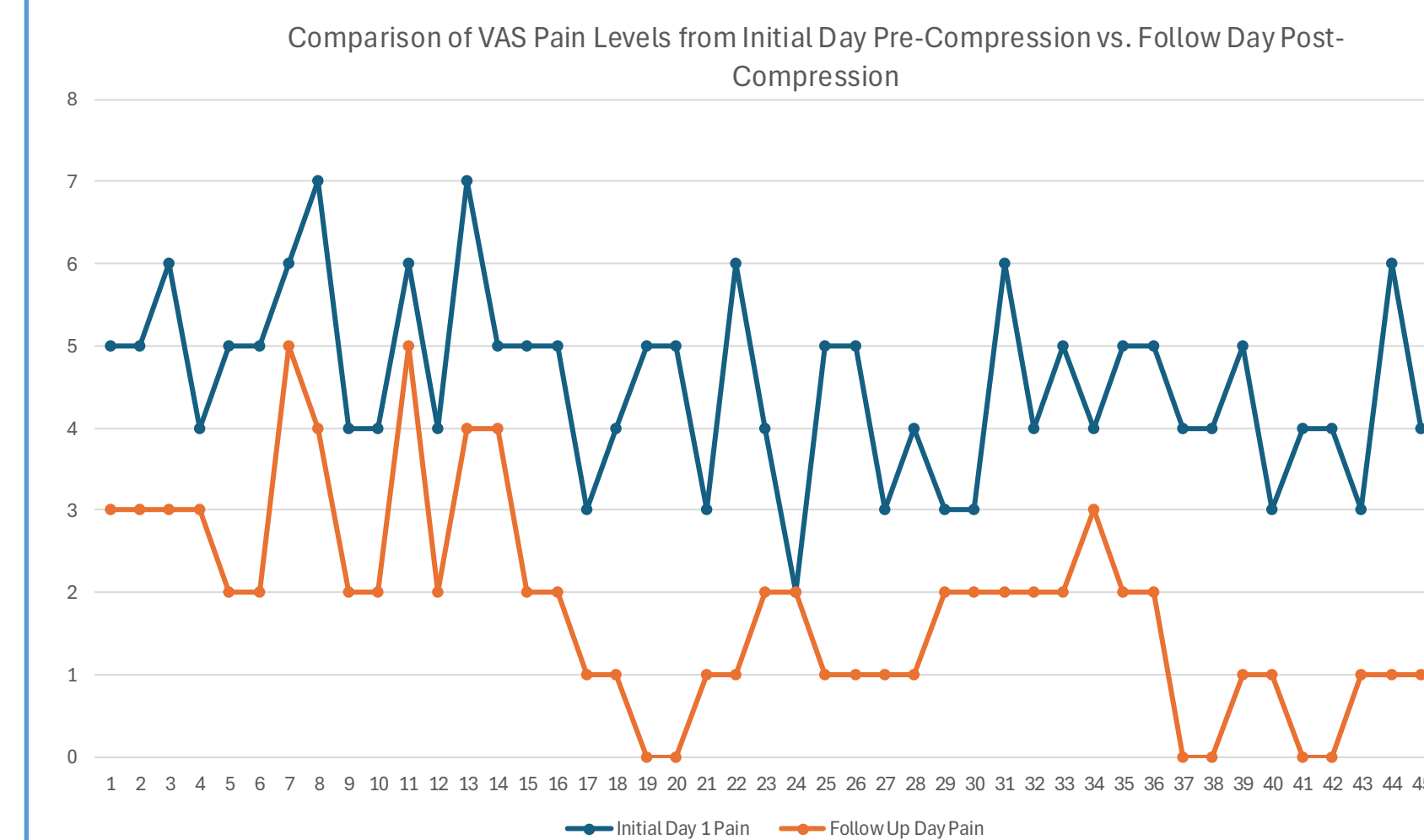
In graphic form, we demonstrate that the DCS product is able to efficiently reduce the calf, ankle, and midfoot circumferences in a single application over an average of 3.96 days. The average circumference reduction was 5.6 % (2.79 cm) at the calf, 7.5% (2.4 cm) at the ankle, and 4.9% (1.3 cm) at the midfoot (Table 1). On average, patient reported reduction of pain over the same amount of time (Table 2). The average Visual Analog Scale (VAS) pain score at initial encounter was 4.5. The Visual Analog Scale (VAS) pain score average was 1.8 with average 2.7 point reduction of pain on follow up.

Table 1: Circumference Reduction in Patients with use of DCS over the average of 3.96 days



Results

Table 2: Comparison of VAS Pain Levels from Initial Day Pre-Compression vs. Follow Day Post-Compression



Conclusion:

Though the DCS product is more well known for controlling venous reflux and the management of venous ulcers, our study proves that the DCS product, combining short and long stretch bandages, can also be very effective in the management of lymphedema related leg swelling. Both lymphedema and phlebolympedema are treatable initially via the use of the DCS product to reduce swelling and pain within a short period of time. Due to the significant reduction of edema in a single application, our clinic protocol was to bring the patient back for follow up within 3-5 days in order to prevent and address slippage of the compression system.

Conclusion:

We postulate that the DCS product is an efficient first line of therapy for acute presentation of edematous lower extremities secondary to lymphedema or phlebolympedema regardless of wound presence.

References

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