

A longitudinal tubular elastic compression alternative for difficult to treat leg edema – a retrospective case series of 21 patients

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Background

Leg edema can cause localized discomfort, skin breakdown and impaired ulcer healing. Traditional bandaging systems cannot be tolerated due to pain, obesity, unusual leg shapes, and woody fibrosis.

We present a case series utilizing an alternative tubular elastic bandage system.* This system has a longitudinally focused, net-like compression structure, without continuous occlusion, to enhance free lymphatic and venous return.

Methods

Twenty-one patients seen in a community-based wound clinic, who had failed traditional compression therapies, were dispensed a single layer longitudinal tubular latex free elastic bandage system.



Figure 1: Patient wearing tubular elastic bandage system



Figure 2: Presence of wales post-wear

*EdemaWear® Compression Dynamics Omaha, NB

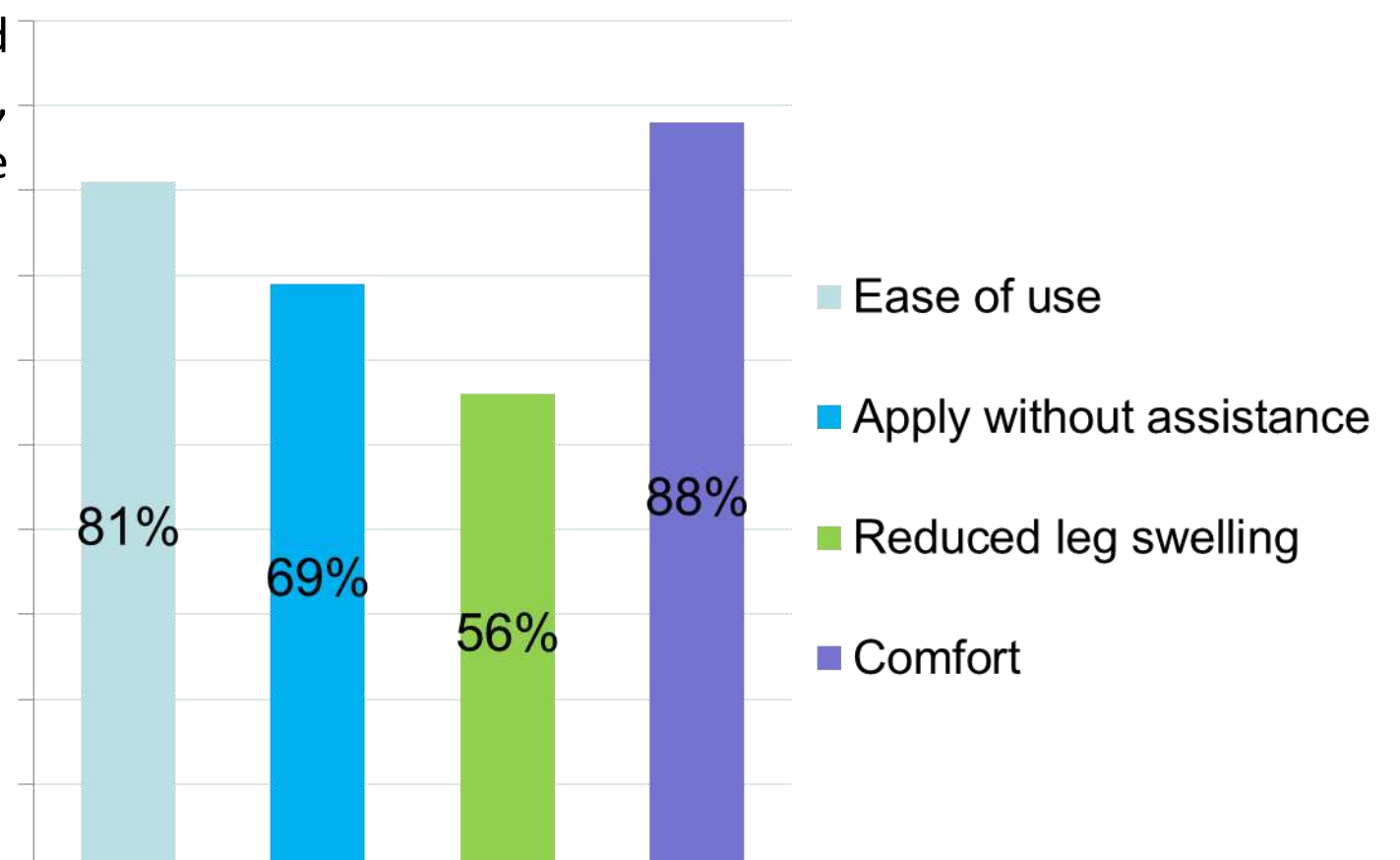
Results

Average patient age was 62 years (range 34-81), with 15 females and 6 males.

Mean patient weight was above normal: n=3 400lbs+, n=4 300-399lbs, n=7 200-299lbs, n=3 <200lbs and n=4 unrecorded weights.

Diagnoses associated with leg edema were: lymphedema n=9 (3 secondary to venous disease), lipedema n=6 (3 with secondary localized lymphedema), n=1 lipodermatosclerosis, and n=5 leg edemas associated with other etiologies (2 diabetic foot ulcers, 1 vasculitis, 1 pyoderma gangrenosum, 1 epidermolysis bullosa)

Retrospective data from 16 patients



- 13 (81%) reported that the system was easy to use
- 11 (69%) were able to apply it without assistance
- 9 (56%) had documented reduced leg swelling
- The majority were comfortable in the tubular elastic system, with 14/16 patients noting a cooling effect with the bandage
- Reasonable cost was noted by patients when re-ordering additional longitudinal tubular elastic bandage systems

Common reported issue with wear:

- Rolling of the proximal bandage similar to other tubular bandages was an issue for some patients

Solutions:

- Turn a 3 inch cuff down rolled down at the top
- Apply inside out

Conclusion

A new tubular elastic bandage system has offered an alternative to traditional elastic and inelastic systems for control of leg edema.