

The Moccasin Technique. An Alternative to Toe Bandaging.

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Introduction

Toe oedema is more commonly associated with lymphoedema but is frequently seen in patients with venous hypertension. In the long-term it leads to toe deformity and it is essential that the problem is managed correctly.¹

According to Best Practice guidelines for the management of lymphoedema, toes should be bandaged if swollen². Toe bandaging has always been the treatment of choice. However, this practice has long been associated with specialist practitioners, due to the possibility of tissue trauma with less experienced clinicians. As a result, this type of bandaging has often been omitted altogether and toe deformity, oedema, fungal infection and ulceration have resulted in some cases.

This case study shows an alternative technique that negates the need for individual toe bandaging and could be adopted into general nursing practice, if successful.

Mrs H, a 57 year old mother of 2 was referred by her G.P, due to bilateral lower limb oedema. This had been present for years but, had begun to impede her movement and affect her ability to do her part time job. Her co morbidities included hypertension, ulcerative colitis, lipoedema and a BMI of 50.7. She found her legs felt very heavy and struggled to get footwear to fit.

On examination, Mrs H exhibited soft pitting oedema below the knees, a positive Stemmer sign and skin folds at the ankles. This indicated late Stage 2 Lymphoedema.³ The patient agreed to have intensive lower limb compression but, did not want individual toe bandaging.

Method

A new 2 layer compression bandage was being trialed in the clinic. It consisted of two components: a comfort layer and a compression layer that bond together to form a semi rigid sleeve. It offered maintenance of limb function as well as having a 'moccasin' technique for the feet which reduced swelling without the need for conventional toe application. The system was undergoing trials in lymphoedema, at the time of this case study and there was no dosage recommendation.

We therefore decided to apply the 2 layer bandage system **five times in week 1** and then **three times a week for 2 weeks**, in addition to intensive skin care.. The legs were bandaged to the knee bilaterally.

The Moccasin technique consisted of the comfort foam layer being placed between the toes prior to bandaging and enclosing the feet. As seen in **figure 2**. Visual assessment of the toes and measurements of the limb circumference were done pre bandaging and at week 2 and 3



Figure 2



Results

After 3 weeks the toe swelling had reduced and the total limb volume had reduced **1464mls** in the right limb and **1869 mls** on the left. The patient found the toe bandaging comfortable and her legs felt 'lighter'.

She tolerated the bandages extremely well, though found them warm. There was a little 'whiteness' to skin folds but this was resolved with barrier cream and did not progress further.

She was able to mobilize well with the bandages in situ and was able to wear her own footwear.

Discussion

Clinical studies have since shown that this system delivers best results when applied just **twice weekly for lymphoedema**.⁴

. It could be argued that enclosing the toes removes the ability to check the circulation of the patient, however, as the bandages are not circumferentially applied around the toes and the pressure comes from dorsal and lateral compression it gives a safe alternative to the standard application.

It offered the clinician effective oedema reduction on the toes and feet which was, quick and easy to apply and offered the patient choice.

Conclusion

The moccasin technique appears to give similar results to conventional individual toe bandaging, although this requires further study.

It is an alternative for those who do not want their individual toes bandaged with the additional benefit of not having bandage movement or the potential to cause trauma.

This technique could be a safe alternative for nurses faced with oedema in the toes in non high risk patients.

References

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