Introduction

This case report shows the treatment and support needed to assist a patient with gross lymphoedema. The combined treatment approach proved successful with limb volume reduction and an increase in the patient's mobility and confidence.

Client background

A 43-year-old married lady “Sarah” (pseudonym to protect identity) with three young children developed unilateral oedema to the left leg during her third pregnancy in 1999. The patient was morbidly obese weighing more than 200 kg, suffered limited mobility and pronounced psychosocial effects from the gross lymphoedema. Figure 1 illustrates the limb at initial assessment in October 2007.

Treatment

Outcome measures were agreed upon by Sarah and the therapists involved in her care. This involved:

- Daily bandaging (Monday–Friday) for three weeks
- Bandaging three times a week for two weeks
- Fitting with compression hosiery when appropriate
- Skin care with emollient
- Exercise
- When appropriate, specialist 12 chambered intermittent pneumatic compression (IPC) using Flowtron Hydroven 12 and the LymphAssist™ modality

Therapy needed to be adjusted to accommodate the advanced stage of her lymphoedema.

Ongoing care

- Weight loss
- Skin care
- Wearing a double layer of class 4 compression hosiery (one layer at night)
- Self-lymphatic drainage for the dependent abdominal oedema
- A course of IPC using the Flowtron Hydroven 12 system using the LymphAssist cycle was prescribed.

Therapy had a uniquely designed, LymphAssist cycle that has been specifically designed to mimic MLD and will not exert pressures above 40mmHg. The cycle starts proximally and moves distally in each of the twelve chambers, assisting lymphatic and venous drainage. Initially, due to the large size of Sarah’s limb and the garment not fitting correctly, it was required to be modified by stopping IPC mid cycle, however, once the limb reduced further in size and the IPC garment fitted the leg correctly this was no longer required and Sarah was able to self-administer the therapy.

- A loan pump was obtained in November 2007 and she was prescribed three cycles daily at 40mmHg.

Results

- After just six treatments the limb had increased mobility and function and Sarah could maintain the limb in elevation during the bandaging session while seated in a chair. Skin thickening was reducing and Sarah reported that she was feeling the benefit of the treatment.
- By day 12 (third week), Sarah reported a 'massive improvement' in her mobility. The calf showed a reduction of 10% (11cm), and Sarah’s skin condition had improved further with the tissues now soft and mobile.
- By November 2007, Sarah, who had received treatment at clinic for only five weeks, was now self-caring and her limb had shown remarkable improvement.
- Sarah was reviewed at three-monthly intervals and was achieving a weight loss of 6kgs per month. After six months of treatment, Sarah was mobilising without sticks, wearing normal footwear. The limb continued to reduce further so that by June 2008, the shape of the limb was normalizing, leaving the skin loose. The LymphAssist garment now fitted the limb and was continued for three cycles daily at 40mmHg.
- In December 2008 the limb had returned to a normal shape and the tissues were soft and supple (Figure 2). Perometry measurements were taken and showed an excess volume of 33% (2722mls). A weight loss of 11 stone had been achieved with a weight loss diet, exercise and limb volume reduction. Sessions of LymphAssist therapy were reduced and a Farrow Wrap was introduced for long-term care.

Conclusion

This case report has demonstrated that through a combined and creative treatment approach for gross lymphoedema, remarkable results can be obtained.

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