

THE MANAGEMENT OF LOWER LIMB LYMPHOEDEMA

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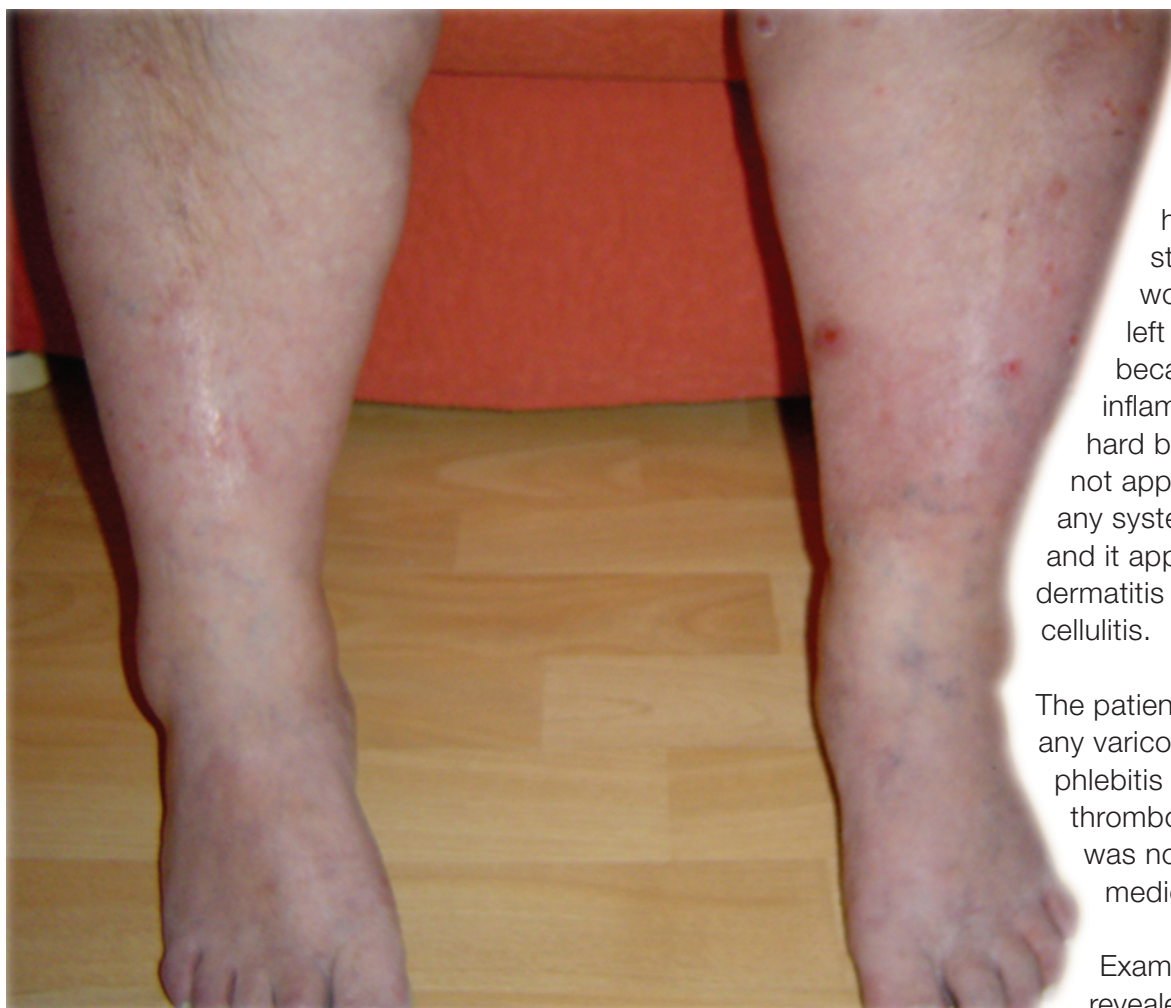


Figure 1. Bilateral leg, ankle and foot oedema with excoriated dermatitis to the left leg.

A 53-year-old woman presented with swollen legs. She remembered having the problem in her teens and also having swollen legs when she worked as a cleaner in the 1970s. She had a family history of the complaint as her mother and aunt had both suffered with

swollen legs and ulceration. She had to stop work because of disabling arthritis that made her virtually wheelchair-dependent, and she spent all day and night in a chair for many years.

The current swelling of the leg had begun two years before.

Initial treatment with diuretics helped but had since stopped working. The left leg at times became very inflamed, red and hard but there did not appear to be any systemic upset and it appeared to be dermatitis rather than cellulitis.

The patient did not have any varicose veins, phlebitis or deep vein thrombosis and was not taking any medication.

Examination revealed her body mass index to be

35, indicating that she was overweight. She had bilateral leg, ankle and foot oedema with excoriated dermatitis affecting her left leg (*Figure 1*). Her skin was itchy and the swelling was firm in some places but was predominantly pitting. There were signs of venous hypertension that appeared to be due to long

periods spent sitting rather than an underlying venous disease. The ankle brachial pressure index score was: right leg 140/134 = 1.04; left leg 130/134 = 0.97 and the signals were biphasic. The lymphoedema was considered to be secondary to immobility and limb dependency (Browse et al, 2003).

The following routine tests were carried out to aid diagnosis:

- ▶▶ Full blood count
- ▶▶ Urea and electrolytes
- ▶▶ Liver function tests
- ▶▶ C-reactive protein
- ▶▶ Thyroid function tests.

A psychological assessment forms part of the wider approach to the management of lymphoedema. During the assessment it emerged that the patient had a poor understanding of her condition and the impact her lifestyle could have on it. There was also a lack of knowledge of good skin care and there appeared to be a lack of motivation to participate in her own care. There was also a distinct dependence on her husband and family to undertake most of her care.

TREATMENT

The assessment identified several of the known risk factors for the development of lower limb lymphoedema: immobility and limb dependency; obesity (Reid, 2004); family history of chronic oedema/ genetic predisposition (Mortimer, 2000).

However, the true risk factor profile is unknown, but treatment should focus on minimising known risk factors where they exist.

The aim of her treatment was to:

- ▶▶ Educate the patient and her family about her condition
- ▶▶ Support self-care and minimisation of risk factors
- ▶▶ Treat the patient's skin condition and leg swelling
- ▶▶ Facilitate long-term management of lymphoedema.

Lymphoedema is a chronic condition for which there is currently no cure. Effective management necessitates a considerable degree of patient and carer involvement. Care was taken to explain what lymphoedema was and the factors which may have contributed to its development. Strategies for minimising risk included providing verbal and written information on the need to prevent skin damage, how to treat minor abrasions, the signs of cellulitis and how to seek medical help in the event of an attack of cellulitis. The Lymphoedema Support Network education leaflets for patients on the prevention of lymphoedema, skin care and foot care and the treatment of cellulitis guidelines were given to the patient.

The patient needed to be advised on supportive footwear and a podiatry referral was made to provide appropriate foot care for the patient's calluses. The skills of the multidisciplinary team should be used to optimise treatment and support self-management regimens. Referral to an occupational therapist was also made to provide a safer wheelchair with foot plates which would also facilitate leg elevation,

as she was often in the chair for long periods of time. They would also be able to address any adaptations required in the home to allow the patient to sleep in bed at night. A referral to a physiotherapist was also made to try to improve her mobility.

The initial treatment and long-term management of lymphoedema focuses on enhancing the functioning of the lymphatic system, limiting further deterioration of swelling and gaining long-term control of the



Figure 2. The patient was fitted with a circular knit below-knee compression garment.

condition. Treatment included the daily skin care, compression therapy and movement and exercise.

Daily skin care

Daily skin care was planned to improve the patient's skin hydration and reduce the risk of cellulitis (Badger et al, 2004). The plan of care included washing the skin with water and moisturising with a non-sensitising vegetable-based emollient. Vegetable-based products can be absorbed better into the skin and, therefore, soothe and support the skin's barrier function.

Compression therapy

The patient needed compression therapy to provide support for muscles and encourage lymphatic and venous flow. Short-stretch bandages were used for two weeks and were changed three times each week. This was used to reduce swelling and to treat the dermatitis (Moffatt et al, 2005). A low-adherent dressing was used on any broken areas of skin. At the end of the second week the patient was measured for a ready-to-wear, circular knit, below-knee compression garment (23–32mmHg). Ready-to-wear garments are used when there is minimal shape distortion (Doherty et al, 2006). Two pairs of hosiery were supplied and the garment was fitted a week later (Figure 2). Bandaging was maintained until the hosiery was applied. The patient's husband was instructed on how to apply and remove the garment as she was unable to do this without help. Clear verbal and written instructions were given on

errors of fit, such as pressure points and skin discolouration or constrictions discovered after first wearing. If problems occur, she was instructed that the garment should be removed immediately and the practitioner informed.

Movement and exercise

The patient was encouraged to exercise including diaphragmatic breathing exercises to enhance lymph and v-venous flow. She was taught simple leg exercises to perform while sitting, as well as deep breathing exercises to be done once a day. A crucial part of treatment was ensuring that she could sleep in her bed at night.

Community nurses have a role to play in the long-term phase of therapy which involves:

- ▶▶ Observation and monitoring control of swelling
- ▶▶ Renewal of hosiery, which should be done every 3–6 months depending on frequency of use
- ▶▶ Providing positive reinforcement and motivation to facilitate the implementation of self-management regimens
- ▶▶ Referral to the specialist team if her condition deteriorates or is unresponsive to treatment.

OUTCOMES

The dermatitis resolved, and her swelling reduced and was comfortably contained in a garment that was manageable and acceptable for the patient and her carer. The patient took more responsibility for her care, elevating her legs more frequently, walking more indoors, and becoming less dependent on her family.

CONCLUSION

Lymphoedema of the lower limb often remains unrecognised, particularly if it does not occur secondary to cancer treatment. A recent epidemiological study identified a prevalence of lymphoedema in the UK that was similar to that of leg ulceration. Most patients will be managed in the community and the most effective management requires a multidisciplinary approach. A comprehensive medical and physical assessment is required to identify and treat the factors that contribute to the condition. As it is a chronic condition, patients and carers need to be educated and supported to develop and undertake appropriate self-care strategies to control swelling, prevent complications and stop its progression. **WE**

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