A total treatment approach for a complex lymphedema patient with skin lesions and extensive hyperkeratosis

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Introduction

Prevalence of lymphedema in The Netherlands is estimated at 350.000. Its cause may be congenital (10%) or it may develop (90%) due to phlebological disorders, trauma, surgery or oncology. In combination with obesity and or lip-edema it may pose complex problems. Often lymphedema is misdiagnosed and does not get the required treatment. Therapy is delivered by a multi-disciplinary team and comprises: skin care; exercise; high stiffness compression (SSI >10) and if applicable, lymph drainage therapy. Patient guidance, education and motivation is key in the delivery of lymphedema treatment.

The aim of the case series (N=20) was to provide improvement of the patients 'quality of life, achieving complete debridement, closing the skin lesions and providing comfortable and effective lymphedema management using a short stretch compression system and tubular under padding.

Method

Case ascertainment was used in twenty patients with lymphedema. Patients gave informed consent.

Inclusion criteria:

- Male or female patients of > 18 years;
- Lymphedema of the leg(s) otherwise healthy,
- ABI >0.8
- Patients had the ability to understand and to comply with the treatment

Exclusion criteria:

- Allergy against one of the used materials;
- Arterial occlusive disease (ABPI less than 0.8);
- COPD; DM; Cardiac diseases

Typical Case

A typical case is presented to illustrate the results. The complex patient has chronic lymphedema of the legs and scattered critically colonized lesions. The 61-years-old male patient had diabetes type two, hypothyroidism, morbid obesity and was a closet alcoholic. He had poor mobility and stayed in his chair for 24 hours. He never slept in his bed. He had massive oedema in both legs that had large deformities and so far he had refused compression therapy. In order to assess his situation and to start therapy in a controlled setting he was admitted to hospital (Fig 1). After 3 weeks he was discharged and treatment was continued in the community (Fig 2).

Results

The multidisciplinary team approach comprised: Psychological counseling, education about his situation and the options for treatment, Debridement of the lesions and hyperkeratotic areas with a *monofilament fiber product + PHMB (Fig 3); Manual lymph drainage; Compression (**tubular padding and ***cohesive short stretch bandages) (Fig 4, Fig 5, Fig 6). A ****collagen dressing was used covered with an *****absorbent pad (Fig 4). Debridement sessions were repeated upon dressing and bandage system changes every second day for a week. After 6 days the skin was clean and supple and circulation had improved (Fig 7). The lesions were now covered with healthy granulation tissue and the oedema had reduced markedly (Fig 8). The approach provided effective care in the community enabling the patient to improve his condition and to face his issues. The treatment result enabled him to stay at home and improved his quality of life markedly, accepting maintenance therapy is key for his chronic condition.

Conclusion

The multidisciplinary approach provided effective care in the community for all twenty lymphedema patients that were evaluated in the case series. The treatment results demonstrated an improved quality of life. The patients received maintenance therapy and follow up visits to further control the chronic condition. ■

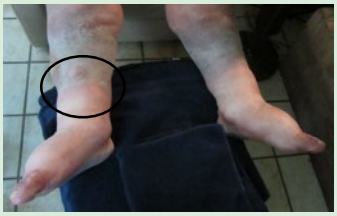

Fig 1: Situation upon discharge from the hospital. Treatment is continued in the community by a nurse specialist.

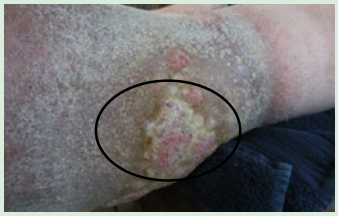

Fig 2: Detail of the right leg. Hyperkeratosis and scabs as well as lesions are scattered on his legs.

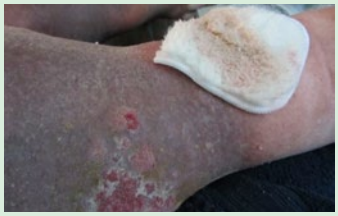

Fig 3: Debridement is performed using a *monofilament fiber product + PHMB.

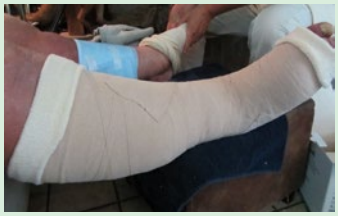

Fig 4: Compression is applied after lymphdrainage.

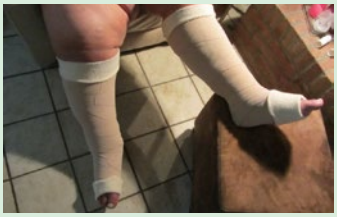

Fig 5: Compression is applied on both legs.

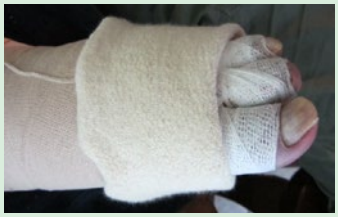

Fig 6: The toes are included in the compression bandages.

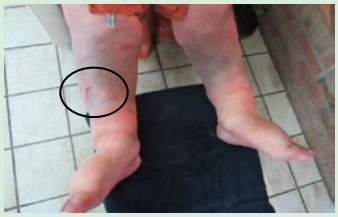

Fig 7: The oedema is reduced and the lesions are covered with granulation tissue

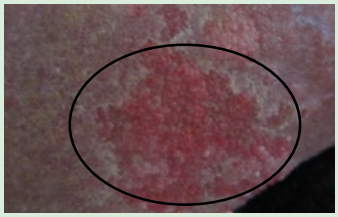

Fig 8: The lesions are covered with granulation tissue.

*Debrisoft®, **tg® Soft, ***Raucodur® Kohäsive, ****Suprasorb® C, *****Flivasorb® from Lohmann & Rauscher. Scientific grant from Lohmann & Rauscher.