



Service Priorities and Programmes
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Submitting author: Ms Wing Sze LAM

Post title: Advanced Practice Nurse, UCH, KEC

Modified 3 layers elastic tubular bandage as compression therapy for venous leg ulcer.

Lam, WSJ(1), Ngan HL(1), Kwan WKK(1), Ng KK(1)

(1) Wound & Stoma Care Service, United Christian Hospital

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Introduction

Chronic venous insufficiency (CVI) is a progressive disease of the circulatory system characterized by venous stasis (prevent backflow of the blood), hypertension, oedema, skin changes and venous ulceration at the lower limbs (VLUs). There are approximately 3.5% of people over age 65 have venous ulcers. The number is rising as the population ages. During December 2016-December 2017, 142 new cases which related to VLUs were referred to the GOPC Wound Nurse Clinics of Kowloon East Cluster, which is 25% of the total numbers of new cases (566 cases per year). Exercise, leg elevation, structured wound management plus graduated compression therapy has been recommended as the first-line treatment for VLUs. Many studies found that compression heals VLUs more effectively than no compression. Nevertheless, not all the patients can tolerate traditional compression bandage therapy. Recently, the nurses in United Kingdom & Australia have used 3 layers of elastic tubular bandage (ETB) as the compression therapy of VLUs. However, the size of the ETB, the pressure provided and the effectiveness are not well documented. Hence, our team has carried out a project to look into this issue.

Objectives

- To investigate the appropriate size of ETB for different circumference of leg
- To investigate the endurance of the ETB
- To evaluate the effectiveness of modified 3 layers ETB

Methodology

1. Patients suffered from venous ulcers and with ABPI >0.8 follow-up in KEC GOPC wound clinics were recruited in the project
2. 3 layers ETB were offered as the additional wound care treatment
3. The pressures at lateral malleolus of affected limbs were measured by sub-bandage pressure measuring unit, aim at 18-25mmHg
4. The pressure were measured again on week 2, week 4 and week 6 to ensure sufficient compression were given
5. The progress of wound healing and the effectiveness of the modified 3 layers ETB

were evaluated after 6 weeks

Result

There are total 11 patients fit the inclusion criteria. 73% patient's wounds were healed within 6 weeks, 18% patient's wound size reduced more than 50%. 9% patient's wound size remains static. No patient's wound size became larger.

All patients tolerated the compression given by 3 layers ETB and the 3 layers ETB could maintain 18-25mmHg compression on ankle within 4 weeks.

In conclusion, 3 layers ETB is one of the effective compression therapies for patients with VLUs. Thus, we can provide more choices for patients to treat their problem.