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THERAPEUTIC HOTLINE: LETTER

DERMATOLOGIC THERAPY WILEY

A case of elephantiasis nostras verrucosa treated successfully by a new type of compressive garment

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Abstract

Elephantiasis nostras verrucosa (ENV) is a clinical manifestation composed of hyperkeratotic, verrucous, and papillomatous lesions and dermal fibrosis, which complicate chronic lymphedema. There is currently no cure for ENV, however, several measures have been used to reduce lymphedema and the resultant pseudoepidermal hyperplasia. Supportive dressings and compression therapy still constitute an important part of the treatment. In this report, we present a 69-year-old male patient with ENV developed due to chronic lymphedema caused by venous insufficiency. After failure of healing with conventional two- and three-layered bandages, and elastic stockings, he was successfully treated by a new type of compression garment. We recommend this user friendly garment for prevention of frictional trauma, contact dermatitis, and secondary infection, which all may complicate compression treatments.

KEYWORDS

bigfoot disease, clothes, clothing, compression, elephantiasis nostras verrucosa, lymphedema, lymphostatic verrucosis, mossy foot, treatment

1 | INTRODUCTION

Elephantiasis nostras verrucosa (ENV) is a clinical manifestation comprising hyperkeratotic, verrucous, and papillomatous lesions and dermal fibrosis, which develop after chronic lymphedema.[1] There is currently no cure for ENV, however, it can be reduced and controlled.[1,2]

2 | CASE REPORT

A 69-year-old man presented with progressive, severe edema and numerous protruding masses on both legs, since 1 year. He had never suffered from filariasis and had no history of familial lymphedema. He was insulin dependent type II diabetes mellitus for 15 years and had a history of deep venous thrombosis of the right leg. His body mass index was 41.5 kg/m^2.

In dermatological examination, the legs were in dusky red color with nonpiting edema, there were multiple verrucous, brownish-red papulonodules over the anterior aspects of the legs, with a cobblestone-like pattern and lymphorrhea and scattered superficial ulcers (Figure 1).

Laboratory evaluation results for complete blood cell count, thyroid function tests, and blood biochemistry were normal. C reactive protein was 15.07 mg/L (normal ranges: 0-5).

Venous color-Doppler sonography of the right lower extremity revealed subacute and/or chronic stage thrombosis, and subcutaneous edema, while left lower extremity disclosed grade II insufficiency of perforating veins. Arterial color-Doppler sonography of lower extremities showed only slight atherosclerotic contour irregularities.

Manual drainage and pneumatic compression could not be applied due to economic reasons. We applied wet dressings with aluminum subacetate 5% twice a day and topical clobetasol propionate 1% ointment admixed with fucidic acid 1% ointment under occlusion for 10 days but the lesions worsened after cessation of the treatment. We used a two-layer bandage twice a week but due to the limited efficacy after 1 month, we turned to a four-layer bandage. After 15 days four-layer bandage was shifted to pressure stockings. However, widespread erythema along with increase in edema indicating an

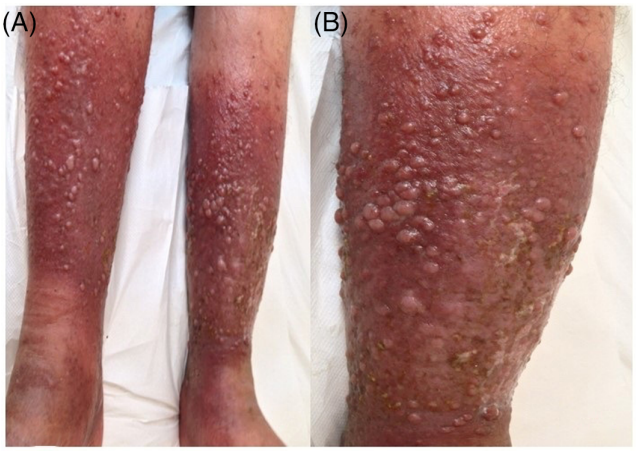

FIGURE 1 Prominent verrucous papulonodules on both shins

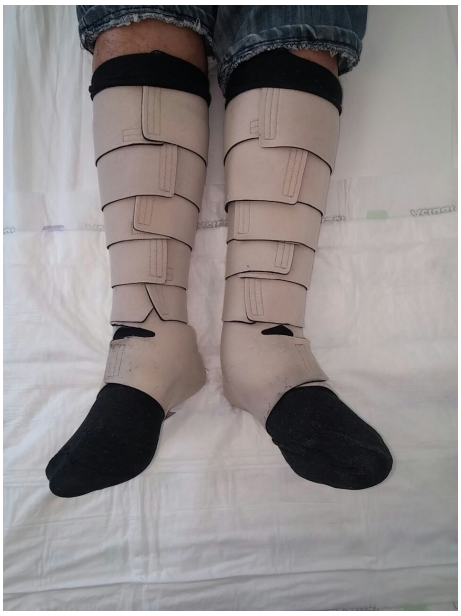

FIGURE 2 The patient easily donned the wrap with adjustable straps which prevent gapping

allergic or irritant dermatitis and superficial ulcerations developed rapidly by stockings. For these reasons, the patient was put on a new type of low-stretch compression garment (ReadyWrapTM).The garment was composed of two pieces; on for lower leg and the other for the foot (Figure 2). For additional support and protection, a compression hosiery was used beneath the garment. In 2 weeks, the verrucous papulonodules regressed almost totally, with a great reduction in edema (Figure 3) We could follow up the patient for 1 year, the lesions did not relapse.

3 | DISCUSSION

ENV is a rare clinical condition and is secondary to various causes of lymphatic obstruction.[1,2] The diagnosis of ENV is mainly based on

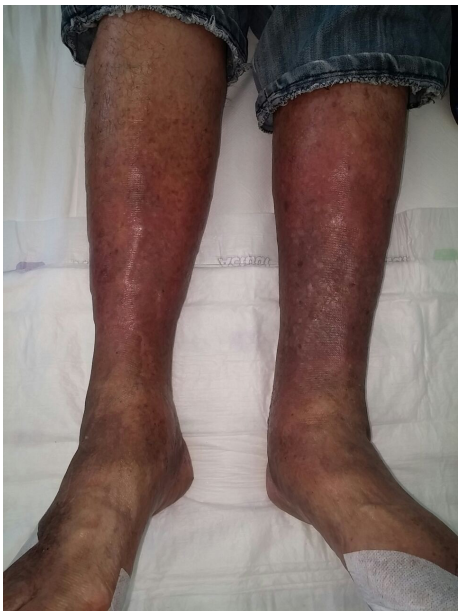

FIGURE 3 After 2 weeks of treatment, both edema and EVN lesions were greatly reduced

patient history, physical examination, and characteristic skin lesions.[2,3] In our case, there was no history of familial and filarial lymphedema. Venous insufficiency found to be the only underlying cause. The treatment of ENV is challenging and based on case reports.[4]

Compression therapy is the key component in treatment of lymphedema. It reduces capillary filtration, minimizes accumulation of tissue fluid and inflammatory processes, enhances venous return, and improves lymphatic transport capacity.[5]

Adjustable compression wrap devices using hook and loop fasteners present new opportunities for improving treatment outcomes, supporting patient independence, and self-management in the use of compression therapy.[6] The adjustable compression garment that we used for our patient is a nonelastic, low-stretch adjustable wrap comprising high-tech fibers composed of nylon, polyester, and polyurethane. It provides an average adjustable compression of 30-40 mm Hg, which is sufficient for reduction of edema.[7] Adjustable wraps are effective alternatives to elastic compression garments or multilayer bandaging.[6] Overlapping straps prevent gaps and a tricolor strapping system makes the application practical that allow patients to use the garment on their own.

4 | CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data available on request from the authors.

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