

A simple technique for preoperative reduction of lymphoedema

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ABSTRACT

This article presents a simple and easily reproducible technique for the pre-operative reduction of lymphoedema in patients undergoing excisional procedures for cosmetic reasons. The technique needs no expensive equipment and can be used by the patient at home. It is ideally suited for use in rural surgery, where filarial lymphoedema is especially common.

KEY WORDS

Lymphoedema, Pneumatic compression, Filariasis.

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INTRODUCTION

Over three billion people live in countries endemic for filariasis. About two-thirds of such people live in India and similar developing nations.¹ It is a common disease in certain parts of rural India. For patients with disabling lymphoedema and elephantiasis secondary to filariasis, reducing operations such as Charles and Homan's procedure are necessary. Preoperative reduction of lymphoedema makes the skin supple and lax, thus making the excision and reconstruction easier. Commercially available compression devices are expensive and often difficult to procure. A simple technique to achieve volume reduction in the limb prior to surgery is presented here.

CASE REPORT

A 52-year-old lady from an endemic region presented with severe elephantiasis of the right lower limb. She had developed warty excrescences, hyperkeratosis and superficial fungal infection. She received a course of Diethylcarbamazine (72 mg/kg over 3 weeks) with measures for local hygiene. In addition limb volume reduction was achieved by the technique described below.

The equipment consisted of five standard adult blood pressure apparatus cuffs with attached inflation bulbs, one blood pressure manometer and five spigots (plastic

caps of hypodermic needles) to occlude the manometer tubing. The blood pressure apparatus cuffs were wrapped around the limb with 1-cm overlap and inflated sequentially from distal to proximal. A pressure midway between the systolic and diastolic blood pressures was achieved for the most distally situated cuff (100 mmHg) that was then blocked. Then each proximal cuff was inflated by 10mmHg less than the one distal to it, thus creating a pressure gradient (Figure 1). Once the most proximal cuff had been inflated these pressures were maintained for a short duration. All cuffs were then deflated in the reverse order. The patient had been taught how to operate the apparatus. This

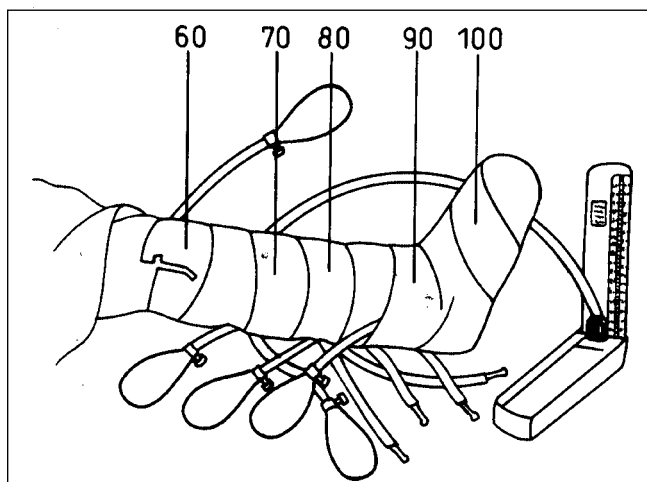


Figure 1: The method of using blood pressure apparatus for the reduction of lymphoedema

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technique was practised during the day. An elastic crepe bandage was used at night and during ambulation. We achieved a reduction of limb diameter from 51.6 cm to 43.8 cm over a period of three weeks and the skin became significantly softer and lax. The patient thereafter underwent a successful excision and grafting (Charles procedure) of the lower limb.

DISCUSSION

Compression is the mainstay of the treatment of lymphoedema. It comprises compression bandaging, massage and anti-filarial drugs.¹ The use of uni-directional pressure cycles has been known to produce rapid reduction in lymphoedema.² The Lympha-Press designed by Zilekovski et al is such a machine.³ The principle of construction is to create 9-12 overlapping cells that are sequentially and rapidly filled from distal to proximal, thus producing a milking effect. This results in rapid reduction of lymphoedema. The cost and lack of availability of the equipment is a problem in

developing countries. Our technique has the advantage of using readily available and cheap equipment, which may be used by the patient even at home. The inflation pressure, cycle duration and the number of such cycles done daily are easily modified by the patient according to comfort and convenience. In addition it is not dependent on electricity and allows the patient to actively participate in the treatment. The method is probably not as effective as the Lympha-Press, which uses overlapping cells and high-pressure cycles (180 mmHg). It is however a low-cost and effective alternative.

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Necrotizing enterocolitis in adults: A study of four cases

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ABSTRACT

Necrotizing enterocolitis is an acute disease that primarily affects premature neonates of low birth weight, and has a very high morbidity and mortality. The incidence in adults is significantly less, with lower mortality rates. Of those who survive, many are left with complications related to short gut syndrome. We report 4 cases of necrotizing enterocolitis all of whom underwent early surgical intervention and had good recovery, followed by a review of the literature on the subject.

KEY WORDS

Necrotizing enterocolitis, Adults.

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INTRODUCTION

Necrotizing enterocolitis is an acute disease that primarily affects premature neonates of low birth weight, and has a very high morbidity and mortality.

The incidence in adults is significantly less, with lower mortality rates. The overall outcome depends on clinical staging and radiological and haematological parameters. Of those who survive, many are left with complications related to short gut syndrome.

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