

# Lipoedema and varicose vein surgery: A worse prognosis?

José Maria Pereira de Godoy<sup>1</sup>, Maria de Fátima Guerreiro Godoy<sup>2</sup>, Milena Hayashida<sup>3</sup>

<sup>1</sup>Department of Cardiology and Cardiovascular Surgery, the Medical School of São José do Rio Preto (São Paulo) Brazil and Researcher CNPq, <sup>2</sup>Occupational Therapist of Private Clinics, <sup>3</sup>Physiotherapist of Private Clinics

---

## Abstract

*The case of a 22-year-old patient who suffered from lipoedema of the lower limbs and underwent aesthetic surgery for varicose veins is reported. After surgery the patient started to present a sensation of heaviness, oedema and tiredness of the limbs. It was observed that the haematomas took about eight months to disappear. The diameter of the legs increased by 4 centimetres in this period. The aim of this publication is to warn about this happening in patients suffering from lipoedema who are then submitted to varicose vein surgery.*

**Key words:** lipoedema, surgery, varicose veins

---

## Introduction

Lipoedema is a chronic vascular disease almost exclusively of the female sex, characterized by the deposit of fat on the legs with an “Egyptian column” shape, orthostatic oedema, hypothermia of the skin, alterations of the plantar support and the absence of Stemmer’s sign [1]. Some other frequently found signs are: ecchymosis, spontaneous pain, liposclerosis of the thigh, hypodermic hyperalgesia and pain of the internal face of the knee [2].

Although these patients had mild swelling in their pretibial areas and were all referred with a diagnosis of lymphoedema of the lower limbs, their findings differed significantly from usual patients suffering from either congenital or acquired lymphoedema. Notably, the lower extremity swelling was always bilateral and symmetrical in nature and never involved the feet [3].

Lymphatic microangiopathy with obliterations of micro-vessels develops in chronic venous insufficiency, in lipoedema (preliminary results) and after recurrent erysipelata [4].

Magnetic resonance provided images of lipoedema patients with homogeneously enlarged subcutaneous layers. In patients suffering from phleboedema, areas containing increased amounts of fluid within the muscle and subcutaneous fat tissue were seen, and in lymphoedema, a honeycomb pattern above the fascia between muscle and subcutis was observed [5].

## Case report

The case of a 22-year-old patient with a height of 1.6 metres and a weight of 65 kilograms, who suffered from lipoedema of the lower limbs is reported. As the patient was uncomfortable due to the lipoedema, she constantly measured the diameter of the legs at the ankle. The patient underwent surgery to resect the collateral veins of both lower limbs two years ago, and soon after started to suffer from a sensation of heaviness, tiredness and oedema of both the legs. Physical examination revealed evidence of the presence of lipoedema characterized by an increased diameter of both limbs, principally below the knees, which was symmetrical and

---

Address for correspondence (Adres do korespondencji):

José Maria Pereira de Godoy, MD, PhD  
Rua Floriano Peixoto 2950  
São José do Rio Preto – SP-Brazil, Cep: 15010-020  
e-mail: godoyjmp@riopreto.com.br

did not involve the feet. The diameter of the limbs was 4 centimetres greater than prior to the surgery. The patient was then submitted to lymphatic drainage and prescribed diosmine 450 mg and hesperidin 50 mg twice a day, resulting in a reduction in the size of the limbs and an improvement with respect to the tiredness.

### Discussion

Lipoedema is one cause for the increase of the diameter of the lower limbs with another two motives being lymphoedema and phleboedema. The most important aspects in the case of lipoedema are a genetic history which exclusively affects women, symmetry across both legs, the non-involvement of the feet and a benign evolution.

In the case of lymphoedema, the oedema is generally unilateral, involves the feet, Stemmer's sign can be positive and development can tend towards elephantiasis.

With phleboedema, the oedema involves the region of the ankle more, it can involve the feet, and generally it is unilateral and does not evolve to elephantiasis.

This study involves a 22-year-old patient with family history who presented symmetrical oedema which did not affect the feet.

Varicose vein surgery is known to be an important cause of worsening of oedema. In this surgery, the collateral veins were resected with the preservation the saphenous vein. Initially, the patient took drugs which did not improve the oedema, but the symptoms were controlled. After this result, a treatment combining lymphatic

drainage with medicine was suggested which permitted a rapid reduction of the symptoms and the oedema.

Until the present time, there is no consensus in relation to the lymphatic involvement in lipoedema, however some studies have shown alterations in the lymphatic vessels [1, 4]. In the unique study found on this subject, varicose vein surgery in patients with lipoedema or lymphoedema is discouraged [6].

These findings send a warning to patients who suffer from lipoedema and who intend to operate for varicose veins.

### References

1. Bilancini S, Lucchi M, Tucci S, Eleuteri P (1995) Functional lymphatic alterations in patients suffering from lipoedema. *Angiology*, 46: 333-339.
2. Bilancini S, Lucchi M, Tucci S, Bilancini S, Lucchi M, Tucci S (1990) Lipoedema: clinical and diagnostic criteria. *Angiologia*, 42: 133-137.
3. Rudkin GH, Miller TA (1994) Lipoedema: a clinical entity distinct from lymphoedema. *Plast Reconstr Surg*, 94: 841-849.
4. Bollinger A (1993) Microlymphatics of human skin. *Int J Microcirc Clin Exp*, 12: 1-15.
5. Dwell S, Hagspiel KD, Zuber J, von Schulthess GK, Bollinger A, Fuchs WA (1992) Swollen lower extremity: Role of MR imaging. *Radiology*, 184: 227-231.
6. Foldi M, Idiazabal G (2000) The role of operative management of varicose veins in patients with lymphoedema and/or lipoedema of the legs. *Lymphology*, 33: 167-171.