

Compression

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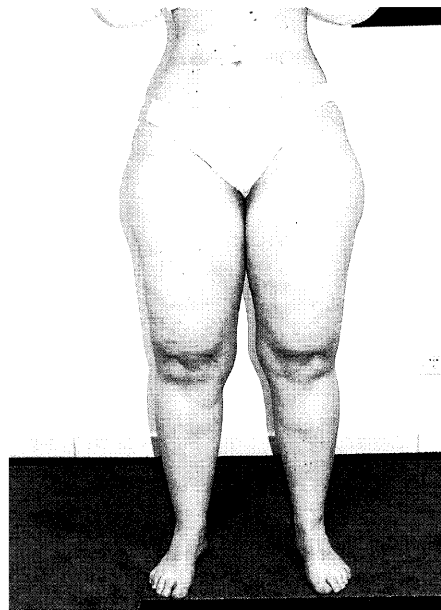
F.-J. Schingale

Therapeutic concepts to prevent lymphoedema after lymphological liposculpture in case of lipoedema

Only a few years ago, operations on patients with lipoedema were refused by the lympho-scientific associations. More recently liposuctions have become acknowledged operations. As the lymphatic system may be affected with this condition, the operations have to be performed gently. To minimize the risk of a postoperative lymphoedema our patients have to undergo a postoperative programme.

Introduction

Lipoedema is a symmetrical disorder of distribution of fatty tissue (Ill. 1) which occurs especially in the thighs and legs, less often in the arms. This clinical picture also includes the accumulation of water (oedema), which usually forms in the second half of the day and is

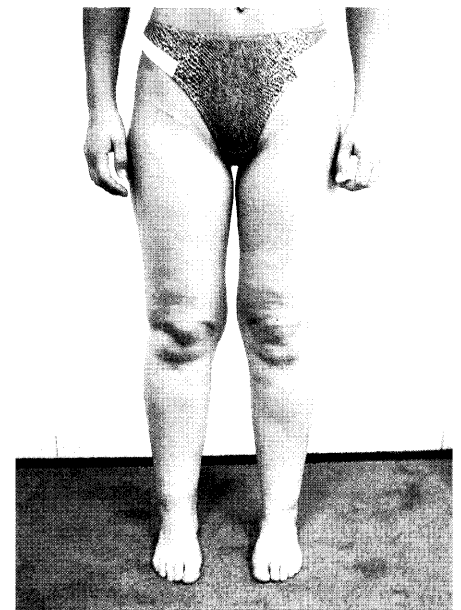


Ill. 1 Lipoedema.

accompanied by painful tension and tenderness to pressure and touch. People who suffer from lipoedema (Ill. 2) develop bruising (haematomas) after the most minor of knocks. The disease is progressive, i.e. it grows worse over the years. The patients develop fatty pads which may inhibit movement (Ill. 3). Emotional stress due to the physical appearance develops into

depression. In advanced stages lymphoedema may develop.

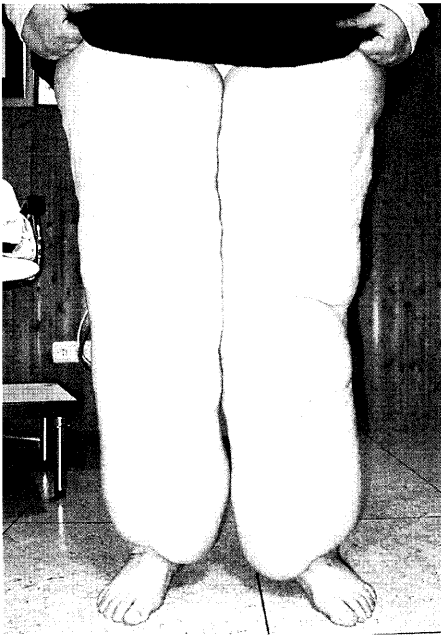
Therapy to date has consisted of conservative treatment with lymphatic drainage - now limited by the new curative guidelines - and wearing compression garments. However, with a few exceptions, only modest reductions in circumference were achieved, pain was



Ill. 2 Lipoedema.

relieved and, with intensive compliance with the conservative therapy, progression of the disease was prevented.

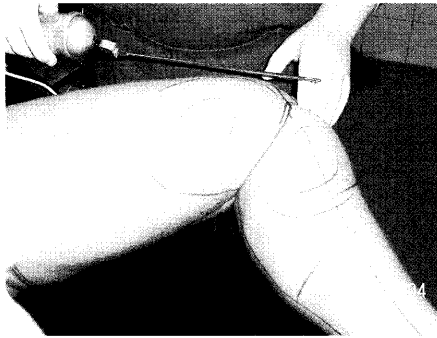
If the lipoedema is already further advanced, gentle liposuction - better called liposculpture - is a logical step in definitive therapy. With this method, the fatty pads are saturated and softened with a local anaesthetic fluid. After a short



III. 3 Pronounced lipoedema.

exposure time they can then be aspirated with thin vibrating cannulas.

Lympho-scientific associations have now acknowledged this therapeutic technique as a true alternative. The tenderness improves immediately, susceptibility to oedema is markedly reduced, and there is even the side effect of an improved appearance because the pillar-like changes in the legs are improved.

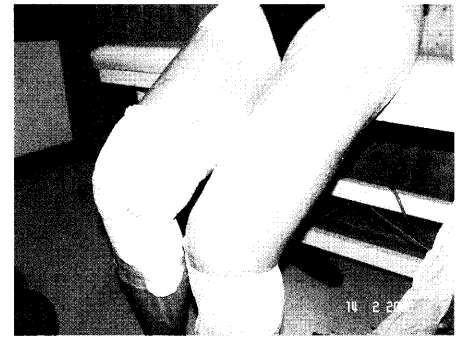


III. 4 Aspiration with the vibrating cannula.

Method

In order to offer the patients better treatment, the clinic introduced Dr. Cornely's lymphological liposculpture in March 2004. The legs are operated on from the hip to the ankles, and the arms from the shoulder to the wrist.

290 lymphological liposuction procedures for lipoedema and non-pitting oedema associated with secondary lymphoedema were performed at the Lympho-Opt Clinic between March 2004 and July 2006. In the author's opinion, the healing process is speeded up by one week of lymphological follow-up therapy. The tumescence fluid and secretions containing fatty tissue are broken down more rapidly, and the lymphological bandaging reduces postoperative haematomas.



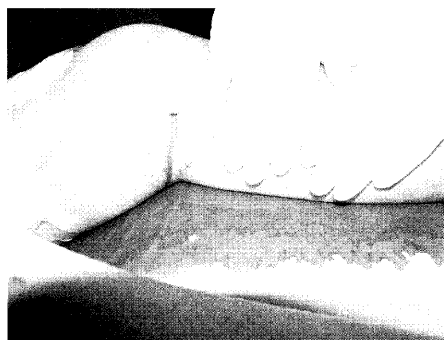
III. 5 Condition immediately after the operation.

The aim of the concept is to offer patients with lipo- and lymphoedema a permanent improvement in their quality of life, and to arrange the circumstances surrounding the operation such that the organism is stressed as little as possible and the healing process is optimised. In order to attain this goal, the concept consists of four phases:

- a. Preparation
- b. Liposculpture
- c. Follow-up treatment, and
- d. Inspection

a) Preparation: the patient arrives at the Hirschbach Treatment Centre:

In the peaceful family atmosphere at the Treatment Centre, which nestles in an idyllic valley, the patients can recover from the journey,



III. 6 Postoperative drainage

relax in peace, and activate their circulation with gentle strolls.

This – and one or two restful nights „in the country“ – are the best possible preparation for the liposculpture.

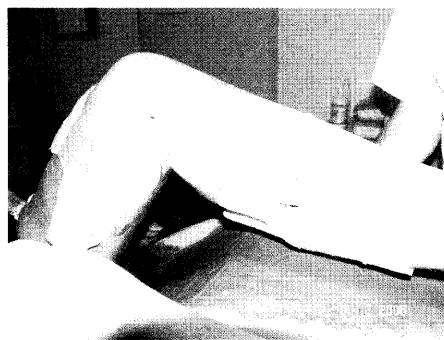
b) This is followed by the liposculpture

Two to four operations are needed, depending on the severity of the oedema. About three litres of tumescence fluid are injected into each limb by a pump and a two to three mm-thick needle. After an exposure time of one hour the surgeon starts to aspirate the fluid with long, thin vibrating cannulas about three to four mm wide. Investigations in co-operation with Prof. Brenner at Innsbruck University have shown that the lymphatic vessels can tolerate longitudinal tension, but rupture more easily if pulled sideways. At the end of the liposculpture procedure as much as possible of the fluid remaining in the limb is massaged out. Finally, absorbent compresses are applied (Ill. 5) over the incision channels.

c) Follow-up care at the Hirschbach Treatment Centre

The patients receive their first manual lymphatic drainage session on the day of the operation (Ill. 6), although in a modified form because normal manual lymphatic drainage would transport the remaining anaesthetic into the circulation. This is followed by lymphological bandaging.

During the next few days in the follow-up treatment phase the patients are given a light and nourishing diet, manual lymphatic drainage every day (Ill. 7 and 8), lymphological bandaging (Ill. 9 and 10), and automatic intermittent compression therapy (Ill. 11). Daily mobility exercises round off the fol-



III. 7 First day after surgery.

low-up therapy.

To finish off the follow-up phase the patients are provided with Lipomed basic compression garments which must be worn night and day for three weeks. The compression garments must be worn during the day for a total of six weeks until the next operation. Once the operations have all been performed the patients are given flat-knit compression garments to wear for six months, e.g. Lympho-Opt medi 550.

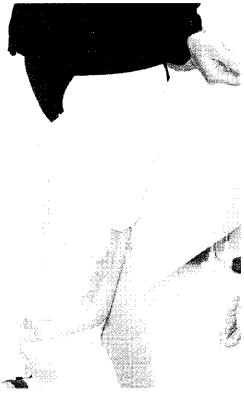
This combination of treatment, the correct diet and exercises promotes more rapid, pain-and scar-free healing. The skin returns to normal more quickly, and the circulation and metabolism become more robust.

d) Inspection and aftercare

Since the lymph-saving liposculpture reduces the volume of the body parts that are treated, skin flaps may develop which, as experience has shown, disappear within six months. In rare cases a skin tuck, including the fascia, may be necessary. This is why we recommend our patients to attend follow-up examinations six, twelve and eighteen months after the operation as part of a treatment week at the Lympho-Opt Treatment Centre. The reduction in circumference and the body's composition are



III. 8 Second day after surgery



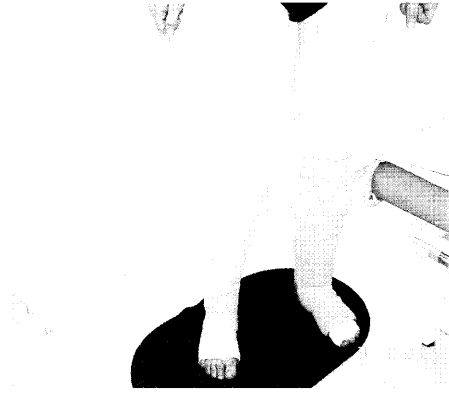
III. 9 Lower leg bandage.

measured again in order to make a decision on the patient's further treatment. For a few of the patients this means continuing manual lymphatic drainage and compression therapy.

Summary

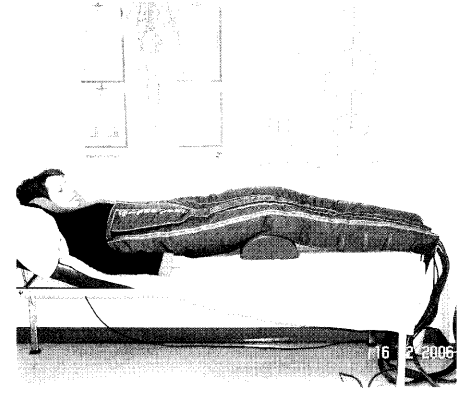
Like all operations on the human body, liposculpture is not completely without risks and side effects. However, these days, these can be considerably reduced. The consultation before the lymphological liposculpture enables the doctor to establish any possible risk factors and to act accordingly. In the author's view, this concept - which consists of high-quality surgical competence complemented by pre- and postoperative care at the Lympho-Opt Hirschbach Treatment Centre - offers the very best conditions for the outcome of the liposculpture procedure and rules out postoperative complications, particularly the development of lymphoedema, as far as possible.

For all the patients treated to date this concept has resulted in the disappearance of the tenderness to touch, mobility was improved, and the susceptibility to oedema was reduced.



III. 10 Finished bandage.

Further, the contours of the legs were improved substantially and no cases of postoperative oedema occurred.



III. 11 Automatic intermittent compression.

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