

## LIPEDEMA COMPLICATED BY LYMPHEDEMA OF THE ABDOMINAL WALL AND LOWER LIMBS

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### ABSTRACT

*We describe a 52 year-old woman in whom lymphedema primarily of the abdominal wall was superimposed on lipedema resulting in an abdomen of enormous dimensions with marked impairment of ambulation. Treatment consisted of preoperative compression of the legs by an external pneumatic device (Lympha-Press) followed by excision of the lymphedematous abdominal fat pad in conjunction with "debulking" of the right leg. The patient illustrates the extremes of lipedema complicated by lymphedema and the technical difficulties associated with its management.*

Lipedema is a descriptive term for the morbid obesity configuration derived from the maldistribution of fatty tissue pads primarily in the lower torso. "Pure" lipedema is mainly a cosmetic problem and is not usually associated with pathological findings either in the lymphatic or venous system (1). Nonetheless, because of extreme "fat legs," patients may be wrongly suspected of having lymphedema and often treated with compression without notable improvement. Occasionally, however, patients with lipedema may have coexistent venous insufficiency or lymphedema and the clinical picture may be dramatic.

We present an unusual patient with lipedema complicated by lymphedema of the

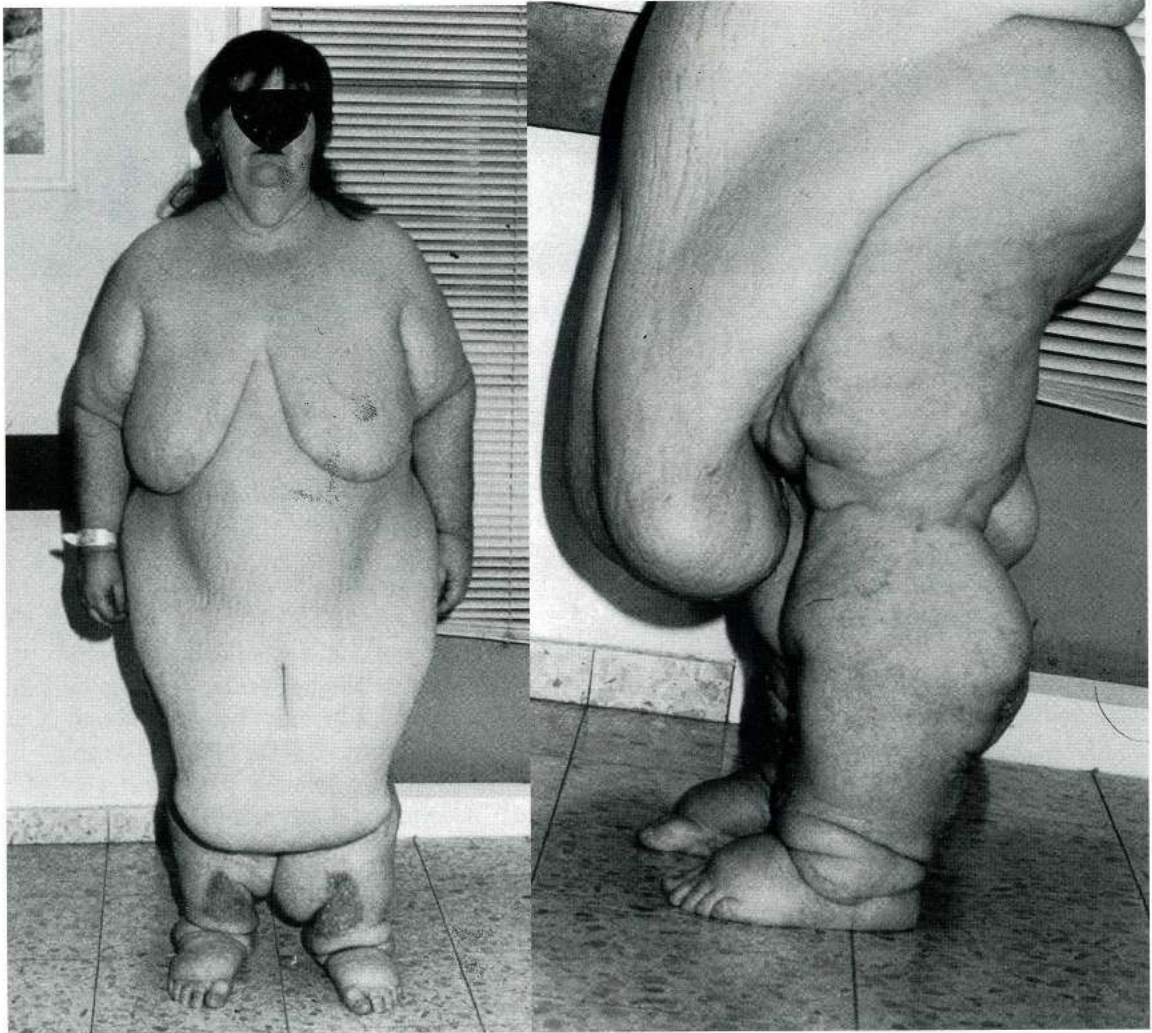
legs and abdominal wall, which severely restricted her quality of life.

### CASE REPORT

A 52 year-old woman presented with prominent swelling of the legs and abdominal wall. She related a "fat" body figuration which worsened after the birth of her only child 25 years previously. The dimensions of her abdomen and legs enlarged to such proportions that she could barely walk (*Fig. 1*).

The patient weighed 160 kg and the abdomen resembled a huge apron reaching below the knees. There was also advanced lymphedema of the lower legs with typical lymphatic papillomas (*Fig. 1*). Ultrasonography of the abdomen demonstrated no abdominal wall hernia.

The patient's legs were connected to a Lympha-Press device (intermittent sequential pneumatic compression) for continuous treatment for three days (2,3). Although the operative plan was conceptually straightforward, we had to hang the abdomen fatty apron on a metal beam to facilitate resection (*Fig. 2*). Excision of the gigantic lymphedematous abdominal fat pad was performed with soft tissue "debulking" of the right leg (*Fig. 2*). The Lympha-Press was applied for an additional four days and the legs were tightly wrapped in elastic bandages. The postoperative course was unremarkable. After



*Fig. 1. Lymphedema of the abdominal wall and legs superimposed on morbid obesity (lipedema).*

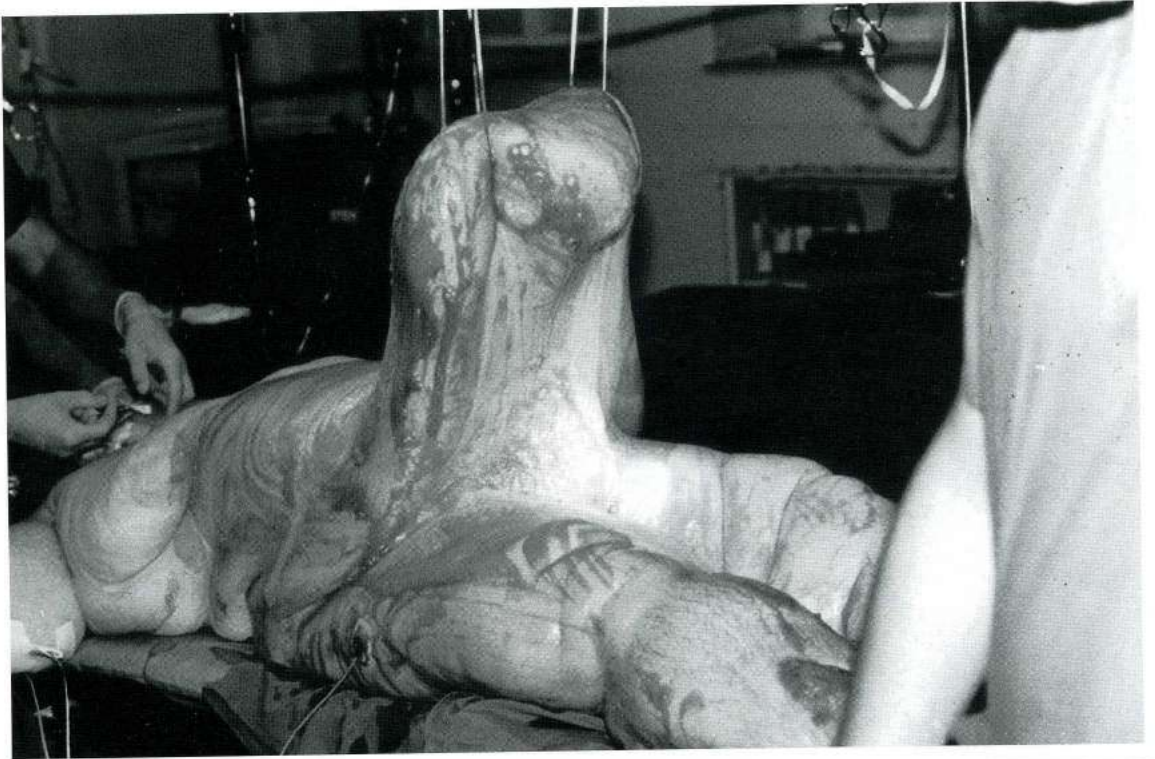
six months she was walking without difficulty and refused further "debulking" of the left leg (Fig. 3).

#### **DISCUSSION**

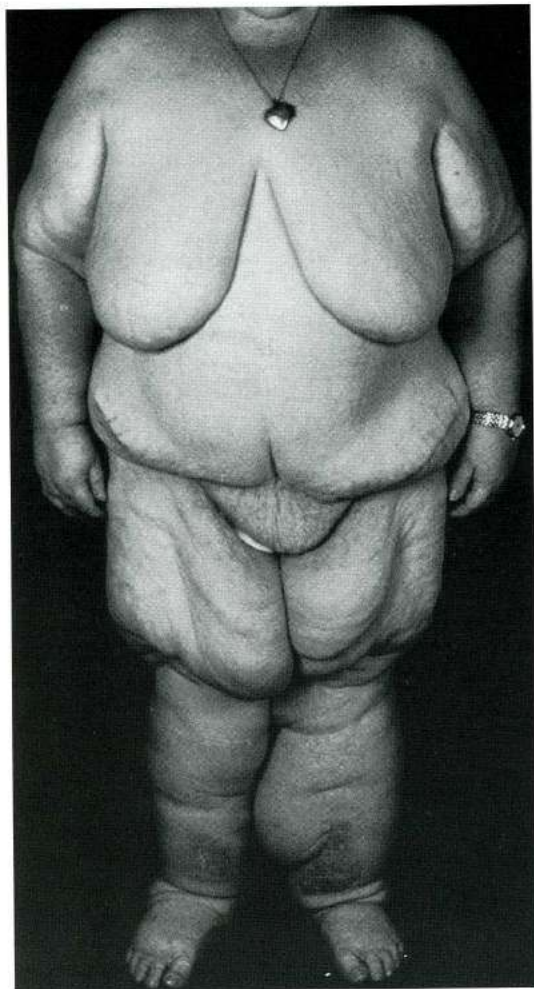
Lipedema, or cellulite, is a common condition (4) characterized by gradual (over many years) development of adipose deposits over the lateral malleolus, medial knee region and lateral and medial thighs and buttocks. The morbid obesity is bilateral and sym-

metrical (5,6). It occurs mostly in women, often with a familial history of obesity. The clinical appearance is that of grossly enlarged legs, thighs and buttocks and most patient complaints relate to the unappealing appearance and hypersensitivity of the skin to pressure (7). Pressure on the skin and subcutaneous tissue accentuates the irregular extrusion of adipose tissue into the dermis, a finding that is diagnostic. The etiology of lipedema is unclear and theories of increased concentrations of glycosaminoglycans in the





*Fig. 2. Elevating the abdominal fatty apron before resection (upper); appearance after panniculectomy and "debulking" of the right lower leg (lower).*



*Fig. 3. Appearance six months after operation.*

skin (8) and a disturbed distribution pattern of subcutaneous fat (9) have been proposed. When lymphedema is superimposed on lipedema, the clinical picture can be overwhelming and nonoperative attempts at treatment may be thwarted by technical difficulties in dealing with the huge dimensions of the legs.

The present patient described not only is unusual because of the superimposition of lipedema on lymphedema of the legs and the abdominal wall, but also for the severity of the disturbance to the point, she was barely

able to walk. Whereas the operation did not cure the lymphedema, it did dramatically improve the patient's quality of life. Undoubtedly, the underlying morbid obesity (lipedema) contributed to the "monstrous" dimension of the abdominal wall.

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