

Images in obesity surgery

Lipedema in patients after bariatric surgery

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Lipedema is a condition of abnormal symmetric bilateral lower extremity or trunk adipose tissue that can easily be confused with obesity or other causes of lower-extremity

enlargement [1–3]. This diagnosis may be overlooked and missed in bariatric surgery patients. Patients with lipedema who undergo bariatric surgery may continue to have



Fig. 1.

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Fig. 2.

extensive lower extremity and trunk adiposity refractory to weight loss.

Unlike lymphedema, lipedema is soft, minimally pitting, lacks epidermal change, extends symmetrically from the buttocks or lower extremities to ankles, and spares the feet [2,4,5]. Lipedema may be related to genetic factors and typically has a normal lymphoscintigraphy [2,6]. Treatment often includes compression garments or liposuction [7,8]. Female patients with disproportionate lower-trunk or lower-extremity excess subcutaneous fat before weight gain or those who have physical examination findings consistent with lipedema can be aided by having these features identified before bariatric surgery. Identification of lipedema before weight-loss surgery may help guide the patient's expectations after weight loss. As it is unlikely that the significant excess in the trunk and extremities will resolve with weight-loss surgery alone, additional procedures to remove this excess might be required, such as liposuction.

A 40-year-old female 13 months post-laparoscopic gastric bypass BMI decreased from 69 kg/m² to 40.6 kg/m², excess weight loss 62%, total weight loss 39%, is shown in Fig. 1. She reported having a mother and grandmother with large hips and extremities. Fig. 1 shows bilateral symmetric lower extremity excess fat despite her weight loss, which spares the feet. A 42-year-old female 8 years post-laparoscopic sleeve gastrectomy, BMI decreased from 59.7 kg/m² to 42.5 kg/m², excess weight loss 49%, total weight loss 29% is shown in Fig. 2. Note the extensive persistent trunk

and lower extremity adiposity of lipedema despite weight loss elsewhere.

Disclosures

The authors have no commercial associations that might be a conflict of interest in relation to this article.

References

- [1] Allen EV, Hines EA Jr. Lipedema of the legs: a syndrome characterized by fat legs and orthostatic edema. Proc Staff Meet Mayo Clin 1940;15:184–7.
- [2] Fonder MA, Loveless JW, Lazarus GS. Lipedema, a frequently unrecognized problem. J Am Acad Dermatol 2007;57(Suppl. 2):S1–3.
- [3] Forner-Cordero I, Szolnoky G, Forner-Cordero A, Kemény L. Lipedema: an overview of its clinical manifestations, diagnosis and treatment of the disproportional fatty deposition syndrome - systematic review. Clin Obes 2012;2(3-4):86–95.
- [4] Shin BW, Sim YJ, Jeong HJ, Kim GC. Lipedema, a rare disease. Ann Rehabil Med 2011;35(6):922–7.
- [5] Rudkin GH, Miller TA. Lipedema: a clinical entity distinct from lymphedema. Plast Reconstr Surg 1994;94(6):841–7; discussion 848–9.
- [6] Child AH, Gordon KD, Sharpe P, et al. Lipedema: an inherited condition. Am J Med Genet A 2010;152A(4):970–6.
- [7] Wagner S. Lymphedema and lipedema - an overview of conservative treatment. Vasa 2011;40(4):271–9.
- [8] Schmeller W, Hueppe M, Meier-Vollrath I. Tumescence liposuction in lipedema yields good long-term results. Br J Dermatol 2012;166(1):161–8.