Commentary on ‘Lymphovenous Microsurgical Shunts in Treatment of Lymphedema of Lower Limbs: A 45-year Experience of One Surgeon/One Center’

M. Waltham *

King’s College London British Heart Foundation Centre of Research Excellence, Academic Surgery Department, St Thomas’ Hospital Campus, Westminster Bridge Road, London, United Kingdom

Lymphoedema remains a major health problem affecting 100—300 million people worldwide. In the developed world, non-infective aetiologies predominate due to primary (idiopathic) lymphoedema or as a consequence of secondary damage to lymphatics following trauma, surgery, or malignancy. For most patients with mild/moderate lymphoedema, treatment involves compression or massage therapies,¹ although access to specialist lymphatic services for investigation and appropriate treatment varies widely.

Identification of genetic causes of primary lymphoedema has advanced significantly over the last decade and a number of surgical interventions are also enjoying a revived interest. Focus has shifted towards renewed attempts at enhancing drainage of lymph through ‘physiological’ channels. From the earliest attempts by Handley (who implanted subcutaneous silk threads in 1908²), many operations have tried to emulate physiological lymph drainage, including skin and mesenteric bridges to bypass obstructed segments. However, equivocal results throughout the mid 20th century led to this approach being supplanted by ‘excisional’ procedures such as Homans’ reduction³ with good results being published by some.⁴ Liposuction has also established a role in selected patients.⁵

Edwards and Kinmonth demonstrated the existence of lymphovenous shunts in lymphoedema patients in 1969⁶ and operations to connect lymphatics to veins were pioneered from that time. Evidence for the efficacy of these treatments is, however, lacking. Many patients with primary lymphoedema (whether sporadic or part of a recognised hereditary genetic condition) have reduced or absent functioning lymphatics throughout the affected limb and so the therapeutic benefit of forming lymphovenous shunts must be questioned.

Professor Waldemar Olszewski has been a pioneer of this technique, and in this issue of the European Journal of Vascular and Endovascular Surgery, he presents data from his 45-year experience of performing microsurgical lymphovenous shunts to treat lower limb lymphoedema.⁷ During this time-period, Professor Olszewski has treated over 1300 patients with a range of lymphoedema aetiologies. The surgical technique involved anastomosis of either inguinal node or dissected afferent lymphatics to the saphenous vein or its tributaries. In comparison to other contemporary series, Olszewski’s patient group had very limited access to compression hosiery or other forms of compression/massage therapy, suggesting that the published results are unlikely to have been biased by these adjuvant treatments.

The findings support the theoretical expectation that primary hyperplastic and post-lymphadenectomy patients benefitted most from surgery, while those with post-inflammatory damage or primary lymphoedema (hypoplastic, regressive or aplastic lymphatics) benefitted least. This study, therefore, emphasizes the importance of identifying patients with primary lymphoedema who have proximal iliac regression of lymphatics with preserved distal vessels in order to maximise the benefit of this type of surgery. Where the underlying cause is more predictable (e.g. after inguinal dissection), there is a higher likelihood of encountering functioning lymphatics in the limb.

The future lies in the refinement of these surgical techniques, perhaps combined with adjuvant lymphangiogenic therapy. Dedicated specialist centres providing a multidisciplinary approach to the treatment of lymphoedema and other lymphatic diseases will provide the highest standard of care and will permit full assessment of lymphatic function in order to identify potentially suitable patients. Surgical treatments still have an important role in the management of lymphoedema.

REFERENCES


7 Olszewski W. Lymphovenous microsurgical shunts in treatment of lymphedema of lower limbs: a 45-year experience of one surgeon/one center. Eur J Vasc Endovasc Surg, in press.