

The First Vascularized Lymph Node Transplant in South Africa: A Case Presentation

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Introduction:

Secondary lymphedema is a progressive debilitating condition. As Plastic Surgeons we are confronted with this condition as an iatrogenic injury secondary to surgery and radiation in the course of cancer management. There is no medical cure. Treatment is aimed at relieving symptoms. Non surgical treatment is based on elevation of the extremity, compression garments and manual lymph drainage.

Historical surgical management relied on ablative procedures like the Modified Charles- and the Homans' procedures. Recent advances has made a huge impact on the improvement in the quality of life of these patients. These newer procedures revolve around reconstructing a normal physiological lymphatic system. The two physiological procedures available are lymphatico-venous bypass procedures and the vascularized lymph node transplants. We performed, and report on the first vascularized lymph node transplant in South Africa.

Aim of presentation:

We aim to show the decision making, selection- and surgical process involved in the transplantation of a vascularized lymph node.

Materials and Methods:

We retrospectively do a case presentation of a male patient that underwent a free vascularized lymph node transplant from his right groin-crease to his left lymph-edematous upper extremity.

Our patient developed lymph edema after an axillary node clearance of the left axilla. This was part of the treatment in the course of management for a malignant melanoma on his left trunk.

Objectively we did pre-operative measurements and compared it to regular post-operative measurements of the affected limb.

Subjectively we documented symptoms at regular follow-up intervals to assess improvement or deterioration of symptoms. Finally we assessed the outcome based on the "Lymphedema Quality of life Outcome Tool" (LYMQOL) questionnaire .

Ethical approval was not considered as this procedure happens as a routine with reported good results in the developed world.

Results:

We report a 4.83% volume reduction and a 2cm reduction of the circumference of the lymph-edematous upper extremity in a 14-month period following the transplant. His LYMQOL score showed a significant increase in the quality of his life.

Conclusions:

A free vascularized lymph node transplant reduced the volume of a lymphedematous extremity and improved symptoms of a patient suffering from secondary lymphedema. He had a significant improvement in the quality of his life. The free vascularized lymph node transplant procedure holds great potential for the improvement of the quality of life for patients suffering from this debilitating condition.