

CASE REPORT

Vascularized Lymph Node Transfer From Thoracodorsal Axis for Congenital and Post Filarial Lymphedema of the Lower Limb

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Vascularized lymph node transfer is becoming a popular method to treat lymphedema. We have performed vascularized lymph node transfer for two patients, one with congenital and the other with post filarial lymphedema of the lower limb. Lymph node transfer was performed from the thoracodorsal axis. Both cases exhibited improved results in both limb circumference and quality of life measurements.

J. Surg. Oncol. © 2016 Wiley Periodicals, Inc.

KEY WORDS: vascularized lymph node transfer; congenital lymphedema; filarial lymphedema

INTRODUCTION

The surgical management of lymphedema whether primary or secondary is still evolving, from the times of decongestive therapy and debulking to lymphatic surgeries. The vascularized lymph node transfer is reliable, with reproducible results [1,2]. It creates neo-lymphatics, improves limb mobility, and function in addition to reducing the volume.

METHODS

There were 2 patients identified with lower limb lymphedema. One was a case of congenital type and another filarial lymphedema of right lower limb. We recorded the clinical outcomes up to 6 months post operatively. The health status was evaluated by Euro QOL 5D, which was done pre-operatively and again at 6 months post-op.

CASE REPORTS

Case I

A 2-year child was brought to us with congenital lymphedema of the right lower limb in 2004. He was started on regular massage and complete decongestive therapy. He was brought again at 13 years of age, with International Society of Lymphology- grade III lymphedema [3] with skin changes of hyperkeratosis and pigmentation and history of recurrent lymphangitis. He also had recurrent hydrocele on the right side (Fig. 1).

Though there were no problems with self-care or day to day activities, he could not completely flex his knee, had never worn normal footwear and kept avoiding physical activities at school. He was unable to run long or fast and could not play common sports owing to the heaviness in his right lower limb and easy fatigability.

On evaluating his pre-operative functional status using the Euroqol EQ-5D [4], he gave a health state rating of 70%. His pre-operative Tc-99m lymphoscintigraphy showed no uptake of tracer upto 4 hr (Fig. 2).

Case II

Our second patient was a 41-year old salesman who presented with filarial lymphedema of the right lower limb of 3 years duration. He

had undergone a left above knee amputation following filarial lymphedema 12 years prior, with recurrence of lymphedema in the amputated stump. His chief complaints were lymphorrhea from the right foot and inability to wear a prosthesis on the left above knee stump. There were multiple admissions for recurrent lymphangitis. On examination, there was cobblestone appearance of the right foot and distal 1/3rd of leg, enlarged square shaped toes, positive stemmer's sign and lost ankle contour implying ISL grade III lymphedema [3] with complications (Fig. 3).

Given that he was a salesman, having lost his job 20 years back at the onset of problems in the left leg and totally dependent on his family after left above knee amputation, saving the right leg was paramount.

Preoperative Tc-99m lymphoscintigraphy showed dilated lymphatic channels in the dermis of the right foot and leg with tracer retention and delayed visualization of the inguinal nodes suggesting significant destruction of the lymphatics. He underwent vascularized left axillary lymph node transfer from the thoracodorsal axis.

SURGICAL TECHNIQUE

For the adult patient, the first step was reverse lymphatic mapping on the day of surgery performed an hour before he was given anaesthesia. 0.5 mCi of Tc-99 m albumin micro colloid was injected in the 2nd, 3rd, and 4th web spaces of the left upper limb. After tracer injection patient

The authors have no other affiliations, grants or funding. The content of the article reflects our experience.

Conflict of interest: We have nothing to disclose.

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Received 8 June 2016; Accepted 1 July 2016

DOI 10.1002/jso.24374

Published online in Wiley Online Library (wileyonlinelibrary.com).