Abstract:

The development and improvement of lymph node flaps for treatment of lymphedema

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Lymph node flap transfer is a physiological procedure for treatment of lymphedema.

In 1990 Chen et al first reported lymph node flap transfer for the treatment of obstructive lymphedema in the canine model. Clinically Becker reported lymph node flap for lymphedematous patients in 1991. Since then a variety of donor sites have been used, including groin area, supraclavicular area, submental area, intra-abdominal space, and venous lymph node flap. Each of them has different advantages and disadvantages. Because of the concern of donor site complications, more and more microsurgeons are using intra-abdominal lymph node flaps. Complications among different intra-abdominal lymph node flaps have been reviewed. It provides a guide regarding future tendency of application based on anatomical considerations.

There are still debates regarding the optimal location of recipient sites, whether it’s better to transfer to the distal limb or proximal limb. In 2017 Ciudad and Chen reported double level of lymph node flap transfers using gastroepiploic lymph node flaps to middle and distal limb.

In conclusion, The lymph node flap transfer is promising but it is not effective in all cases. A combination of lymph node flap transfer and reduction surgery has been applied to certain patients of lymphedema. More investigation in basic science and clinical scenario should be continued to clarify its effect.