## **Peer Review File**

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## Reviewer A

75-79: Description of VLNT might be confused with mechanism of lymphovenous anastomosis, false description of the mechanism of VLNT and its vascularization (Ref. No. 10 wrongly referenced)

**Reply:** The description of VLNT and references were changed accordingly to your comment.

Changes in the text: Advancements in our understanding of lymphatic system anatomy and physiology have facilitated the evolution of surgical techniques to ameliorate the symptoms and disability associated with lymphedema. VLNT employs microsurgical techniques to reconstructs the lymphatic circulation to bypass the obstruction or reconnect the efferent and afferent lymphatic flow leading to a decongestive effect.

116: Please further describe microscopic examination including layer thickness.

Reply: Microscopic examination were further added to the manuscript.

Changes in the text: Using microtome, 4-5 micrometer thin sections of lymph node tissue were cut, stained with hematoxylin and eosin. The basic structure and components of the lymph nodes include the capsule, subcapsular sinus, cortex, paracortex, and medulla were examined.

143: There are major differences of lymphnode size with very small nodes possibly inconspicuous to examination. Has the size of the lymphnodes been documented?

Reply: Inclusion criteria of lymph node size was stated.

**Changes in the text**: The lymph nodes were greater than 1cm in diameter.

199/200: Essential literature reference on larger studies is missing. Please update reference list including large studies on VLNT with follow-up >24months (Lin, Becker, Vignes, Cheng, Patel, Roka-Palkovits ...)

227/228: please see comment on 199/200

**Reply:** Essential literature of Lin, Vignes, Cheng, Patel were already included. We have included Beckers and Roka-Palovits studies.

Changes in text: References Becker et al and Roka-Palovits et al.

## Reviewer B

The study aims to evaluate the feasibility of Level I lymph nodes as VLNT. Can the authors comment on the morbidity (or potential) of harvesting these nodal chain.

**Reply:** The authors have discussed level I lymph node morbidity from a recent metaanalysis evaluating the morbidity.

**Changes in text:** Additionally, a recent meta-analysis demonstrates harvesting of level I lymph nodes is associated with low donor site morbidity, with main patient concern reported of beard hair growth

Any clinical experience using these nodes vs another nodal chain?

Can the authors comment on their surgical technique or technical pearls of using these two flaps.

It would be helpful to include a better anatomical picture of the flap designs. Perhaps intraoperative photos?

**Reply:** We have added our previous clinical experience alongside intra-operative photos from our previous publication.

**Changes in text:** The authors previous work utilizing submental and submandibular free VLNT demonstrated significant improvement in genital lymphedema with no donor site morbidity (Figure 3)