Donor limb assessment after vascularized groin lymph node transfer for the treatment of breast cancer-related lymphedema: Clinical and lymphoscintigraphy findings
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Introduction
Vascularized lymph node transfer is an established treatment for secondary lymphedema. Different donor sites of lymph node flap have been described. In our institute, vascularized groin lymph node (VGLN) flap is the workhorse flap for treating breast cancer-related lymphedema (BCRL). Potential complications of VGLN flap harvesting include seroma formation, thigh dysesthesia and iatrogenic lymphedema.

Methods
Between August 2013 and June 2016, 30 consecutive patients with a mean age of 60 years underwent VGLN transfer for BCRL. Reverse mapping of lower limb lymphatics with patent blue solution was performed in all cases. The donor limb conditions were assessed clinically with limb circumference measurement and radiologically with lymphoscintigraphy. Post-operative lymphoscintigraphy findings and transport indexes were compared between the donor limbs and the non-operated limbs.

Results
The mean follow-up period was 22.11 ±7.83 months. Three (10%) patients developed groin seroma and18 (60%) patients complained of transient thigh dysesthesias. There was no clinically detectable donor limb lymphedema. Lymphoscintigraphy was performed at a mean of 13 months after operation. The mean transport indexes of the non-operated limbs and donor limbs were 2.04 and 3.32 respectively. For the donor limbs, all patients had normal distribution pattern of contrast uptake. No dermal backflow pattern was demonstrated.

Conclusion
With good knowledge of groin anatomy and meticulous surgical skills, VGLN flap can be harvested without causing major consequence to the donor limb.