ASO Author Reflections: Identification and Preservation of Axillary Lymphatic System

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PAST

Application of axillary reverse mapping (ARM) in axillary dissection was introduced by Thompson from the USA and Nos from France with the aim of reducing the arm lymphedema rate after surgery for breast cancer.^{1,2} Several questions remain to be solved, including the unsatisfactory identification rate of arm nodes, uncertain oncological effect in long-term follow-up, and effectiveness in reducing lymphedema.³ The results of this clinical trial demonstrate that the refined ARM technique, DEPART, is effective and practical in eliminating arm lymphedema without compromising oncological safety.

PRESENT

Lymph from the arm is drained by 2–4 main afferents and then enters 1–2 nodes, that is, arm sentinel nodes. The key procedure, staged tracing (injection of 0.1 ml blue dye into the arm sentinel nodes), enables visualization of the subsequent-echelon nodes and efferent lymphatics. The high detection rate (81.0%) for the arm lymphatic system obtained in this study indicates that the DEPART technique was effective in the majority of patients. During the

surgery, the gross arm nodes were examined by intraoperative partial frozen section and removed if positive. A 37-month follow-up revealed that this procedure reduced the arm lymphedema rate from 15.3% to 3.3% with non-significant difference in regional recurrence, which is of significance in improving postoperative quality of life of patients who undergo axillary dissection.⁴

FUTURE

This study had a single-surgeon design and was performed at two institutions. The DEPART technique is practical but requires a learning period to perform perfectly. Hence, its effectiveness in axillary dissection and the learning curve for the procedure require investigation in a future randomized multicenter study.

DISCLOSURES The authors report no conflicts of interest.

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