

JOINT EVENT

# 7<sup>th</sup> International Conference and Exhibition on Surgery & 3<sup>rd</sup> International Conference on Anesthesia

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## Evaluation of simplified lymphatic microsurgical preventing healing approach (SLYMPHA) for the prevention of breast cancer - Related clinical lymphedema after axillary lymph node dissection

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**Background:** Lymphedema (LE) is a serious complication of axillary lymph node dissection (ALND) with an incidence rate of 16%. Lymphatic microsurgical preventing healing approach (LYMPHA) has been proposed as an effective adjunct to ALND for the prevention of LE. This procedure however requires microsurgical techniques.

**Aim:** The aim of this study was to assess the efficiency of simplified-LYMPHA (SLYMPHA) in preventing LE in a prospective cohort of patients.

**Methodology:** All patients, undergoing ALND with or without SLYMPHA between January 2014 and December 2016 were included in the study. SLYMPHA is a slightly modified and simplified version of LYMPHA. It is performed by the operating surgeon performing the ALND. One or more lymphatic channels identified by reverse arm mapping are inserted using a sleeve technique into the cut end of a neighboring vein. During follow-up visits, tape-measuring limb circumference method was used to detect clinical LE. Demographic, clinical, surgical and pathologic factors were recorded. The incidence of clinical LE was compared between ALND with and without SLYMPHA. Univariate and multivariate analysis were used to assess the role of other factors in the appearance of clinical LE.

**Results:** 406 patients were included in the study. SLYMPHA procedure was attempted in 81 patients and was completed successfully in 90% of patients. Early complication rates were similar between patients who underwent SLYMPHA and who did not (4% vs. 4.13%;  $p=0.948$ ). Median follow-up time was  $15\pm 13.73$  [1-32] months. Patients, who underwent SLYMPHA, had a significantly lower rate of clinical LE both in univariate and multivariate analysis (3% vs 19%;  $p=0.001$ ; OR 0.12 [0.03-0.5]). Excising >22 lymph nodes and a co-diagnosis of diabetes were also correlated with higher clinical LE rates on univariate analysis, but only excising >22 lymph nodes remained to be significant on multivariate analysis.

**Conclusions:** SLYMPHA is a safe and relatively simple method, which decreases incidence of clinical LE dramatically. It should be considered as an adjunct procedure to ALND for all patients during initial surgery.

### Recent Publications

1. Geetika A et al. (2017) A Breast Cancer Review: through the eyes of the doctor, nurse, and patient. *Journal of Radiology Nursing*. 36(3):158-165.
2. Tolga Ozmen et al. (2017) Evaluation of simplified lymphatic microsurgical preventing healing approach (SLYMPHA) for the prevention of breast cancer-related clinical lymphedema after axillary lymph node dissection. *Journal of Clinical Oncology*. 35(15 suppl):563-563.
3. T Ozmen, Vinyard A and Avisar Eli (2017) Management of the Positive Axilla in 2017. *Cureus*. 9(5):e1216. Doi:10.7759/cureus.1216.
4. Vinyard, Alicia, D.O., Baker, Carl, D.O. Mesenteric Variant of Meckel's Diverticulum Containing a Carcinoid Tumor. Department of General Surgery, Augusta University, Augusta, GA. *The American Surgeon Journal* (Published Online Feb 2016).
5. Vinyard, Alicia, .D.O., Kruse, Jim, D.O. (2016). Subphrenic Abscess. In Domino FJ (Ed.), *The 5-Minute Clinical Consult 2015*, Philadelphia: Wolters Kluwer Health. (Published May 11, 2016).

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**Biography**

Alicia Huff Vinyard is a Board Certified General Surgeon and Fellowship Trained Breast Surgical Oncologist at the Georgia Cancer Center in affiliation with the Augusta University Medical Center in Augusta, Georgia, USA. She attended UNC-Chapel Hill where she completed her pre-medical degree. She completed medical school in 2011 at the Georgia Campus of Philadelphia College of Osteopathic Medicine, Pennsylvania, USA. She completed general surgery training at Augusta University. She decided to specialize in breast surgical oncology to help other breast cancer survivors like herself with a special interest in young breast cancer patients and the obstacles they face. She obtained a fellowship in breast surgical oncology at the University of Miami-Miller School of Medicine in Miami, Florida, USA. She is now employed by the Georgia Cancer Center to lead the breast cancer program as the primary breast surgeon.

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**Notes:**