



## C-52

# Does Lymphadenectomy Extent Impact Survival in Small Bowel Neuroendocrine Tumors?

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**BACKGROUND:** There are no national guidelines for scale of lymphadenectomy for patients with small bowel neuroendocrine tumors (SB-NETs). Recent studies suggest a minimum of 8 nodes for adequate staging.

**METHODS:** The National Cancer Database (NCDB) was reviewed for the years 2004-2013 for all patients with SB-NETs for whom data on lymphadenectomy and outcomes were present. Comparisons were made between patient groups using t-tests, chi-squared, and Kaplan-Meier method. Ranges of lymphadenectomy were examined to identify thresholds at which a possible survival association may exist.

**RESULTS:** 19638 patients met inclusion criteria. 7292 (37%) had 0 lymph nodes (LNs) examined, with 1 LN being the next most frequent number of nodes resected (n=5704, 29%) [see table 1A]. 11817 (60%) patients had fewer than 8 LNs resected. Patients with well-differentiated tumors (82% of study population) were less likely to have lymphadenectomy compared to those with non well-differentiated tumors (71% vs 75%,  $p < 0.001$ ). The mean overall survival for all patients was 103 months, with patients undergoing any lymphadenectomy having a mean survival of 108 months vs 92.6 months for those with no lymphadenectomy ( $p < 0.001$ ). Using stepwise survival comparison, lymphadenectomy of 1-3 nodes was associated with improved survival compared to 0 nodes resected ( $p < 0.001$ ). However, comparison of 1-3 vs 4-6 LNs removed ( $p = 0.147$ ), 4-6 vs 7-9 LNs removed ( $p = 0.629$ ), and 7-9 vs 10-12 LNs removed

( $p=0.962$ ) showed no statistical difference in overall survival. On the other hand, comparison between 10-12 vs 13-15 LNs removed ( $p=0.043$ ) and 13-15 vs 16+ LNs removed ( $p=0.016$ ) were associated with statistical survival improvement.

**CONCLUSION:** 37% of patient with SB-NETs underwent no associated lymphadenectomy. Lymphadenectomy is associated with improved overall survival, with the greatest associations seen for 13 lymph nodes or more resected.