P-1

Predictors And Outcomes Of Minimally Invasive Surgery For Small Bowel Neuroendocrine Tumors

William G. Wong[1], Rolfy A. Perez Holguin[1], Elizabeth J. Olecki[1], Kelly A. Stahl[1], Matthew E. Dixon[1], June S. Peng[1], Arvind Dasari[2], Chan Shen[1]

[1]PennState Health Milton S. Hershey Medical Center, Hershey, PA; [2]GI Medical Oncology, University of Texas MD Anderson Cancer Center, Houston, TX

BACKGROUND: Open surgical resection with regional lymphadenectomy is the standard of care for small bowel neuroendocrine tumors (SBNETs). There is no consensus on the role of minimally invasive surgery (MIS). This study aims to evaluate the current national trends and determine if MIS is an oncologically appropriate treatment for SBNETs.

METHODS: The National Cancer Database was queried for patients with Stage I-III SBNETs who underwent surgery from 2010-2017. Time trends were examined using the Cochran-Armitage test. Chi-square tests, t-test, and multivariable logistic regression assessed associations of surgical approaches with patient, clinical, and facility characteristics. Propensity score weighted Cox proportional hazards model captured the impact of the surgical approaches on survival.

RESULTS: Of the 9,297 patients with Stage I-III SBNETs, 42.6% (N=3964) and 57.4% (N=5333) underwent MIS and open surgery, respectively. From 2010-2017, the proportion of MIS increased from 32.2% to 53.6% (P<0.001). Patients with Stage I disease (OR =1.37), age <56 (OR=1.12), private insurance (OR=1.37), and receiving care at higher volume centers (OR=1.30) were more likely to undergo MIS (all P<0.001). The average number of lymph nodes (LN) harvested in the MIS cohort was greater than in the open surgery cohort (14.8 vs 13.6 LN, P<0.001). MIS patients had shorter length of stay by 2 days (P<0.001). The MIS approach and LN yield ≥8 were associated with better survival (HR=0.671 and HR=0.780, respectively, P<0.001).

CONCLUSION: With its increasing utilization, superior lymph node yield, and notable survival benefits, a MIS approach should be considered for standard treatment of Stage I-III SBNETs.

ABSTRACT ID: 27