# C-45

## Outcomes of Pulmonary Carcinoids Over a Decade: An NCDB Analysis

***Rohit Gosain*[1]*;*** *Saikrishna Yendamuri*[1]*; Sarbajit Mukherjee*[2]*; Renuka Iyer*[1]

[1]*Roswell Park Comprehensive Cancer Center;*
[2]*University of Oklahoma Health Sciences Center*

**BACKGROUND:** Pulmonary carcinoids, typical carcinoid (TC) and atypical carcinoids (AC) are rare diseases. Paucity of randomized studies and disagreements in various guidelines make treatment challenging. Using the National Cancer Database (NCDB), we evaluated the incidence and management of pulmonary carcinoids to examine trends and changes between 2004–2014.

**METHODS:** Using the codes for TC (8240) and AC (8249), we included all cases from 2004–2014. We determined the incidence, and trends by year, changes in surgery performed and chemotherapy usage by stage. For stage 3 and 4, impact of chemotherapy on survival was evaluated by multivariable analysis using log rank test.

**RESULTS:** Between 2004-2014, 21,820 cases of pulmonary carcinoid were reported, out of which 19,560 were TC and 2,260 were AC. Stage 1,2,3 and 4 were 43%, 7.2%, 5.1%, and 5.2% respectively, with 39% unknown. Commonly used surgical approaches were wedge resection (17.5%), lobectomy (14%) and lobectomy with mediastinal lymph node dissection (33.8%). In stage 3 and 4 TC, patients who received chemotherapy did worse than those who did not receive chemo on multivariate analysis, with median survival of 55 (95% CI 45-64) months versus 93 (95% CI 82-107) months respectively ($p<0.001$). Patients with stage 3 and 4 ACs had no survival benefit with chemotherapy in comparison to patients who did not get chemotherapy, with median survival of 47 months (95% CI 41-53 months) versus 46 months (95% CI 27-66 months) respectively ($p=0.974$).

**CONCLUSION:** Incidence and surgery trends have not changed over the last decade for pulmonary TC and AC. Chemotherapy in stage 3 and 4 is associated with worse outcomes in patients with TC and has no benefit in AC. Studies looking at large databases with details of chemotherapy and impact from use in adjuvant setting are warranted to develop evidence based guidelines.