

## ESTS VOGT-MOYKOPF LECTURE

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## ANATOMICAL RESECTIONS ARE SUPERIOR TO WEDGE FOR THE OVERALL SURVIVAL IN STAGE I TYPICAL CARCINOID PATIENTS

Pier Luigi Filosso<sup>1</sup>, F. Guerrero<sup>1</sup>, A. Evangelista<sup>2</sup>, P. Thomas<sup>3</sup>, S. Welter<sup>4</sup>, E.A. Rendina<sup>5</sup>, F. Venuta<sup>6</sup>, M. García-Yuste<sup>7</sup>, G. Rocco<sup>8</sup>, A. Brunelli<sup>9</sup>, L. Ampollini<sup>10</sup>, M. Nosotti<sup>11</sup>, W. Travis<sup>12</sup>, F. Raveglia<sup>13</sup>, F. Ardissoni<sup>14</sup>, P. Casado<sup>15</sup>, O. Rena<sup>16</sup>, V. Larocca<sup>17</sup>, D. Sagan<sup>18</sup>, C. Ests Net-Wg Contributors<sup>1</sup>

<sup>1</sup>Thoracic Surgery, University of Torino, Torino, Italy; <sup>2</sup>Unit of Cancer Epidemiology and CPO Piedmont, San Giovanni Battista Hospital, Torino, Italy; <sup>3</sup>Thoracic Surgery, APHM-AMU North University Hospital, Marseille, France; <sup>4</sup>Division of Thoracic Surgery, Ruhrlandklinik, Essen, Essen, Germany; <sup>5</sup>Thoracic Surgery Unit, University La Sapienza, Sant'Andrea Hospital, Rome, Italy; <sup>6</sup>Thoracic Surgery Unit, University La Sapienza, Policlinico Umberto I Hospital, Rome, Italy; <sup>7</sup>Thoracic Surgery, Clínico Universitario Hospital, Valladolid, Spain; <sup>8</sup>Division of Thoracic Surgery, Department of Thoracic Surgical and Medical Oncology, Istituto Nazionale Tumori, Fondazione Pascale, IRCCS, Naples, Italy; <sup>9</sup>Department of Thoracic Surgery and Thoracic Endoscopy, St. James's University Hospital, Leeds, United Kingdom; <sup>10</sup>Thoracic Surgery Unit, University of Parma, Parma, Italy; <sup>11</sup>Thoracic Surgery and Lung Transplantation Unit, IRCCS Fondazione Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy; <sup>12</sup>Pathology, Memorial Sloan Kettering Cancer Center, New York, United States of America; <sup>13</sup>Thoracic Surgery, AO San Paolo, Milan, Italy; <sup>14</sup>Thoracic Surgery, San Luigi Hospital, Orbassano, Italy; <sup>15</sup>Thoracic Surgery Unit, University Hospital 'Reina Sofia', Cordoba, Cordoba, Spain; <sup>16</sup>Thoracic Surgery Unit, "Amedeo Avogadro" University, Novara, Italy; <sup>17</sup>Thoracic Surgery Unit, Ospedale 'Spirito Santo' Azienda ASL di Pescara, Pescara, Italy; <sup>18</sup>Thoracic Surgery Unit, Medical University of Lublin, Lublin, Poland

**Objectives:** As for other uncommon neoplasms, management of typical carcinoids (TCs) is steeped in dogma carried out from early clinical observations, sometimes based on a small cohort of patients. In particular, non-anatomical resections (wedge) are often advocated for Stage I TCs (SITCs) because of their indolent biological behaviour. The aim of this study was to evaluate the most effective type of surgical resection, in terms of survival, for SITCs, using the European Society of Thoracic Surgeons (ESTS) retrospective NET-WG database.

**Methods:** Using the ESTS NET-WG database, an analysis on effect of surgical procedure on SITC's survival was performed. Overall survival (OS) was calculated starting from the date of intervention. The impact of surgical procedure (i.e. lobectomy vs sleeve lobectomy vs segmentectomy vs wedge resection) on OS was investigated using the Cox model with shared frailty (accounting for the within-centre correlation). An adjusted model was carried out using the typical carcinoid prognostic score for survival.

**Results:** Eight hundred and seventy-six patients operated for Stage I TC (307 males, 35%) were available for the final analysis. Median age was 47 years (IQR 60-69). At the last follow-up, 66 patients died: the 5-year OS rate was 94.3% (95% CI 92.2-95.9). At univariable analysis, wedge resection resulted to be associated with a poor prognosis (5-year OS 82%, 95% CI 0.71-0.89,  $P < 0.001$ ) compared to other anatomical resections. At multivariable score-adjusted analysis, wedge resection confirmed to be an independent predictor of poor prognosis (HR 2.2, 95% CI 1.26-3.85,  $P = 0.005$ ).

**Conclusions:** In one of the largest cohort of patients ever collected, we were able to demonstrate the superiority of anatomical surgical resection for Stage I TCs in terms of OS. This result should therefore be considered for future clinical guidelines for the management of TCs.

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