Abstracts
24th European Conference on General Thoracic Surgery
29 May-1 June 2016, Naples, Italy

P-184
OPTIMAL EVALUATION OF THE SOLID COMPONENT IN PULMONARY TUMOUR WITH GROUND-GLASS OPACITY ON THIN SECTION COMPUTED TOMOGRAPHY
Shunki Hirayama, T. Matsunaga, K. Takamochi, S. Oh, K. Suzuki
General Thoracic Surgery, Juntendo University School of Medicine, Tokyo, Japan

Objectives: The size of solid part in lung cancer having ground-glass opacity (GGO) has been reported to be a prognostic marker. On the other hand, it is not rare to identify more than one solid part in part-solid GGO; we call this type “island-shape”, and in this case how to measure the size of solid component remains controversial. We investigated the most optimal methods of evaluation which reflect pathological invasiveness or prognosis.

Methods: A retrospective study was done on 530 patients with resected clinical stage IA lung adenocarcinoma between 2009 and 2013. We evaluated the following radiological factors on thin section CT with 1 to 3 mm collimation: maximum tumour dimension, maximum solid part dimension on lung or mediastinal window. We defined island-shape solid part (ISP) as solid part distributing more than one part. When ISP was recognized, we compared the sum of each solid size (SSP) and the maximum size of the largest island (ISP) to predict prognosis. Median follow-up period was 3.4 years.

Results: Males were 233 cases and median age was 64 years. Lymph node metastasis was pathologically confirmed in only 1 patient. The 5-year survival rate by the sum of each solid size was 98.7%, 95.2%, 84.7% and 76.2%, for SSP of 0, 1-10, 11-20 and 21-30 mm, respectively (P = 0.258, P = 0.001 and P = 0.365). The 5-year survival by the largest island size were 98.7%, 93.6%, 86.7% and 72.7%, for ISP of 0, 1-10, 11-20 and 21-30 mm respectively (P = 0.089, P = 0.044 and P = 0.144).

Conclusion: For island-shaped part solid tumour, the maximum size of the largest island appeared to be the best predictor of prognosis in clinical stage IA lung adenocarcinoma.

Disclosure: No significant relationships.