

# **MEETING ABSTRACT**

**Open Access** 

# The relationship between the malignancy grade of lung adenocarcinoma with micropapillary pattern and the findings of positron emission tomography

Norifumi Tsubokawa<sup>1</sup>, Takahiro Mimae<sup>2</sup>, Yasuhiro Tsutani<sup>2</sup>, Takeshi Mimura<sup>2</sup>, Yoshihiro Miyata<sup>2</sup>, Morihito Okada<sup>2\*</sup>

*From* World Society of Cardiothoracic Surgeons 25th Anniversary Congress, Edinburgh Edinburgh, UK. 19-22 September 2015

# **Background/Introduction**

The survival rates are not always high after the complete resection even if early stage lung adenocarcinoma. Micropapillary pattern (MPP) was one of prognostic factors in such cancer.

## **Aims/Objectives**

This study aimed to investigate whether preoperative maximum standard uptake value (SUVmax) on positron emission tomography/computed tomography (PET/CT) could indicate early stage lung adenocarcinoma with MPP.

# Method

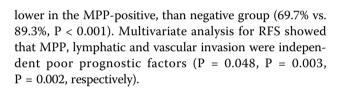
Total 347 consecutive patients with clinical stage IA lung adenocarcinoma that were treated by complete resection were retrospectively examined. We defined MPP- positive as accounting for 5 % or more of the entire tumor.

## Results

Forty eight (14%) and 299 (86%) patients were MPPpositive and negative, respectively. There were no significant differences between both groups in age (P = 0.369), gender (P = 0.059), or tumour size (P = 0.437). However, SUVmax on PET/CT were significantly higher in MPPpositive, than negative group ( $3.02 \pm 2.34$  vs.  $2.19 \pm 2.45$ , P = 0.029, respectively). In addition, lymphatic and vascular invasion as well as lymph node metastasis were more frequent in the MPP-positive, than negative group (P = 0.003, P = 0.029, and P = 0.002, respectively). Fiveyear recurrence free survival (RFS) rates were significantly

<sup>2</sup>Department of Surgical Oncology, Hiroshima University, Hiroshima, 734-8551, Japan

Full list of author information is available at the end of the article



## **Discussion/Conclusion**

The presence (≤5%) of MPP in early stage lung adenocarcinoma should be considered a distinct subtype with a high risk of recurrence and a poor prognosis. In addition, preoperative PET/CT was useful for predicting whether tumours harboured MPP or not.

#### Authors' details

<sup>1</sup>Department of Respiratory Surgery, National Hospital Organization Kure Medical Centre and Chugoku Cancer Centre, Kure, Hiroshima, 737-002, Japan. <sup>2</sup>Department of Surgical Oncology, Hiroshima University, Hiroshima, 734-8551, Japan.

Published: 16 December 2015

doi:10.1186/1749-8090-10-S1-A152 Cite this article as: Tsubokawa *et al*: The relationship between the malignancy grade of lung adenocarcinoma with micropapillary pattern and the findings of positron emission tomography. *Journal of Cardiothoracic Surgery* 2015 10(Suppl 1):A152.



© 2015 Tsubokawa et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/ publicdomain/zero/1.0/) applies to the data made available in this article, unless otherwise stated.