Lung adenocarcinoma staging based on 2011 IASLC/ATS/ERS classification: A pooled analysis of adenocarcinoma in-situ (AIS) and minimally invasive adenocarcinoma (MIA)

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BACKGROUND

- Lung adenocarcinoma accounts for almost 60% of all non-small cell lung cancers.

- According to the 2011 IASLC/ATS/ERS classification, adenocarcinomas that are ≤ 3 cm in size are reclassified as AIS (no invasion) and MIA (≤ 0.5 cm invasion) with pTis (adenocarcinoma) and pT1(mia) sub-categories being proposed.

- We conducted a systematic analysis of available data from the literature to evaluate the outcomes between AIS and MIA.

- A comprehensive search of published studies was conducted from electronic databases (MEDLINE, EMBASE, Cochrane) using relevant search criteria.
RESULTS

- Eighteen studies published between 2011-2014 were eligible for this analysis.

- A total of 863 patients were included (AIS-451; MIA-344; one study reported data with AIS+MIA grouped together-68).

- Median age of the patients was 67.5 years (females-61%, smokers-43%).
RESULTS

- The 5-year DFS rate for the whole population was 97.7%.
- The 5-year OS rate for the entire group was 97.3%.
- There was no difference between the 5-year DFS rate between AIS and MIA groups (97% vs. 96.7%; p=0.34).
- The 5-year OS rate for AIS population was equivalent to that of MIA population (97.5% vs. 96%; p=0.58).
CONCLUSION

- Patients with AIS and MIA experience 5-year survival rate of nearly 100%.

- There are no differences in survival rates when lung adenocarcinoma patients are staged according to the proposed 2011 IASLC/ATS/ERS pTis(adenocarcinoma) and pT1(mia) categories.

- Our findings raise questions regarding the necessity to classify tumors into AIS and MIA.