Outcomes in Elderly Stage I Non-Small Cell Lung Cancer in the SBRT Era: A SEER Analysis

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Background & Purpose

**% New Cases NSCLC by Age**

- <20: 0.0%
- 20-34: 0.2%
- 35-44: 1.1%
- 45-54: 8.1%
- 55-64: 21.5%
- 65-74: 32.4%
- 75-84: 27.4%
- >84: 9.3%

**% Total Cases Receiving SBRT by Year**

Corso et al, American Journal of Clinical Oncology (2014)

SEER 18, Cancer StatFacts (2009-2013)
Purpose

To review outcomes in elderly stage I NSCLC based on treatment modality using the SEER database for patients treated between 2004 and 2012.
Method

- Retrospective population-based study
  - National SEER-18 Database
  - Biopsy-proven stage I NSCLC
  - Age 60+
  - 2004-2012
  - Excluded patients without definitive records for local therapy

- N = 62,213
Results

Number of Patients:

- No Treatment = 7,373
- Radiation Only: 11,589
- Surgery Only: 41,509
Results

Absolute increase in OS at 23 months:
- Surgery: 5%
- Radiation: 19%

Absolute increase in CSS at 23 months:
- Surgery: 4%
- Radiation: 24%
Conclusions

• With advancing age, radiation replaces surgery as the most appropriate treatment modality for early-stage NSCLC.

• Concurrent with the adoption of SBRT as a community standard, both overall survival and lung-cancer specific survival have improved dramatically for patients age 60+ with stage I NSCLC patients treated with radiation alone.
  • OS at 23 months increased 19%
  • CSS at 23 months increased 24%

• SBRT may improve access to care.