

Neoadjuvant Chemo-Immunotherapy: Real-World Outcomes in Operable Non-Small Cell Lung Cancer

Abstract #: 2801

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BACKGROUND

- NSCLC remains the leading cause of cancer mortality worldwide.
- Recent trials showed improved pCR, EFS, and OS with neoadjuvant chemo-immunotherapy compared to chemotherapy alone.
- Cancer Care Ontario has approved chemoimmunotherapy in the neoadjuvant and perioperative setting.
- Limited real-world data exist regarding tolerability and effectiveness outside clinical trials.

OBJECTIVE:

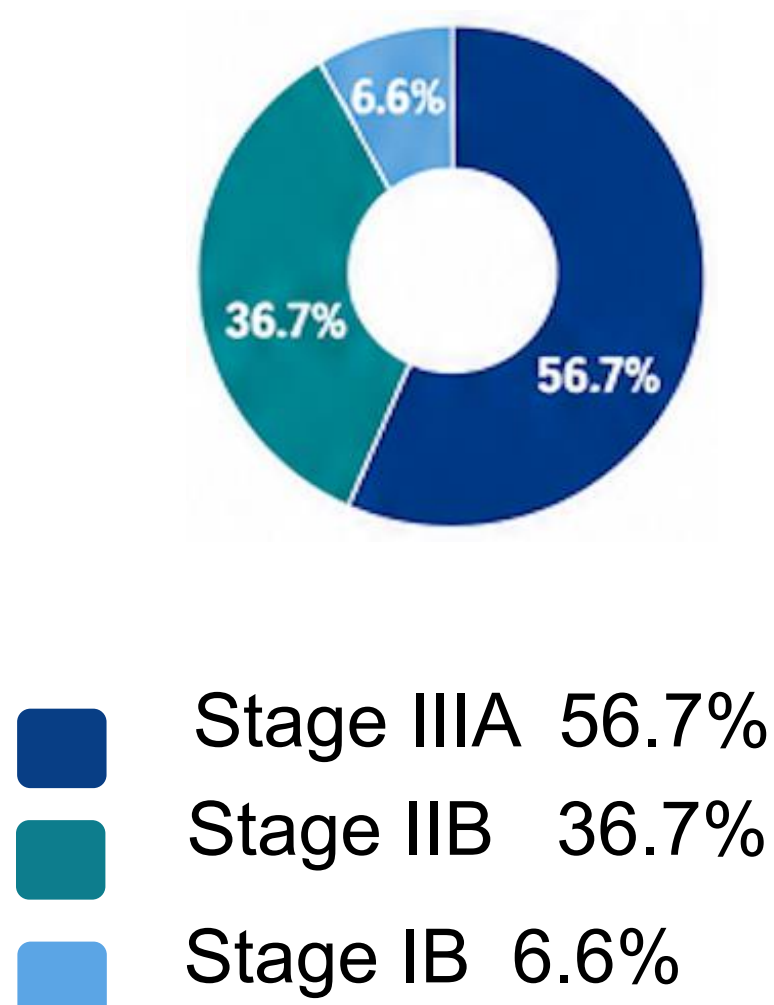
- Evaluate effectiveness (pCR, EFS, OS)
- Assess treatment tolerance
- Explore biomarker characteristics
- Provide real-world evidence to inform clinical practice

METHOD

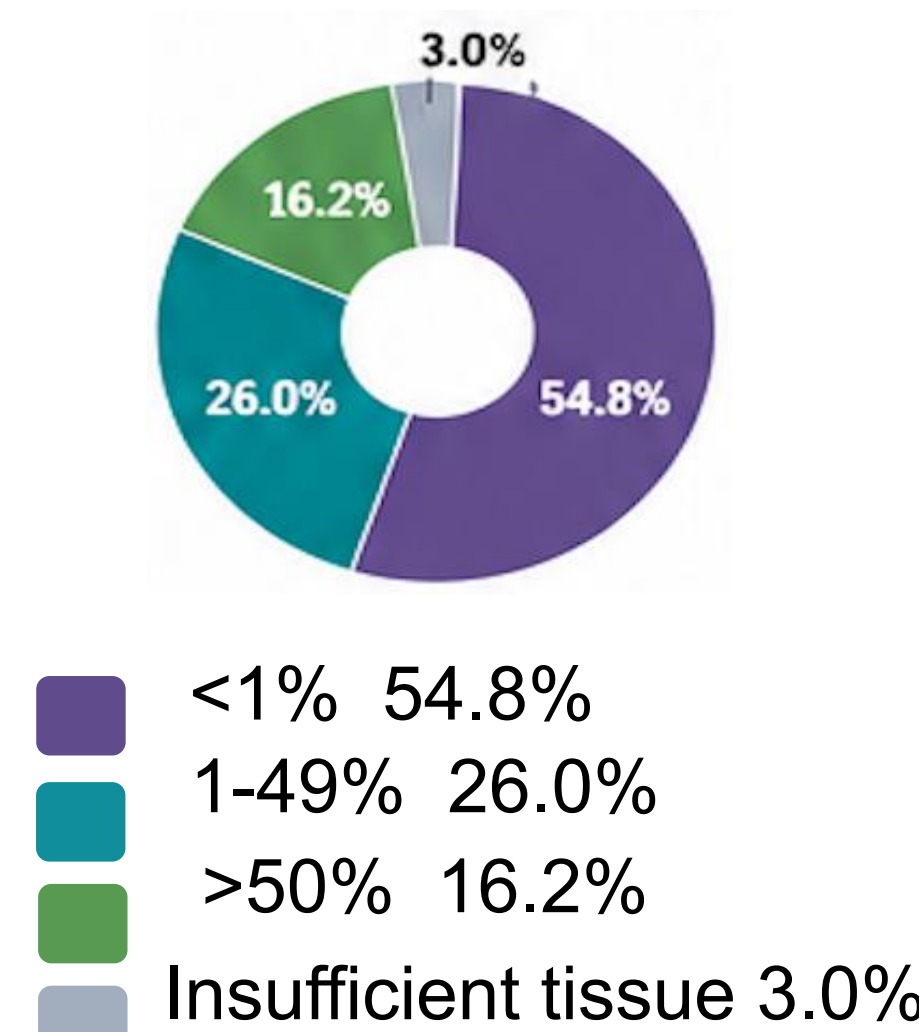
Design	Retrospective Chart Review
Institution	Windsor Regional Hospital Cancer Program, Ontario, Canada
Study Period	January 1, 2023 to December 31, 2025
Sample Size	31 patients
Outcomes	Primary: pCR, EFS, OS Secondary: PD-L1 expression, mutations

PATIENT CHARACTERISTICS

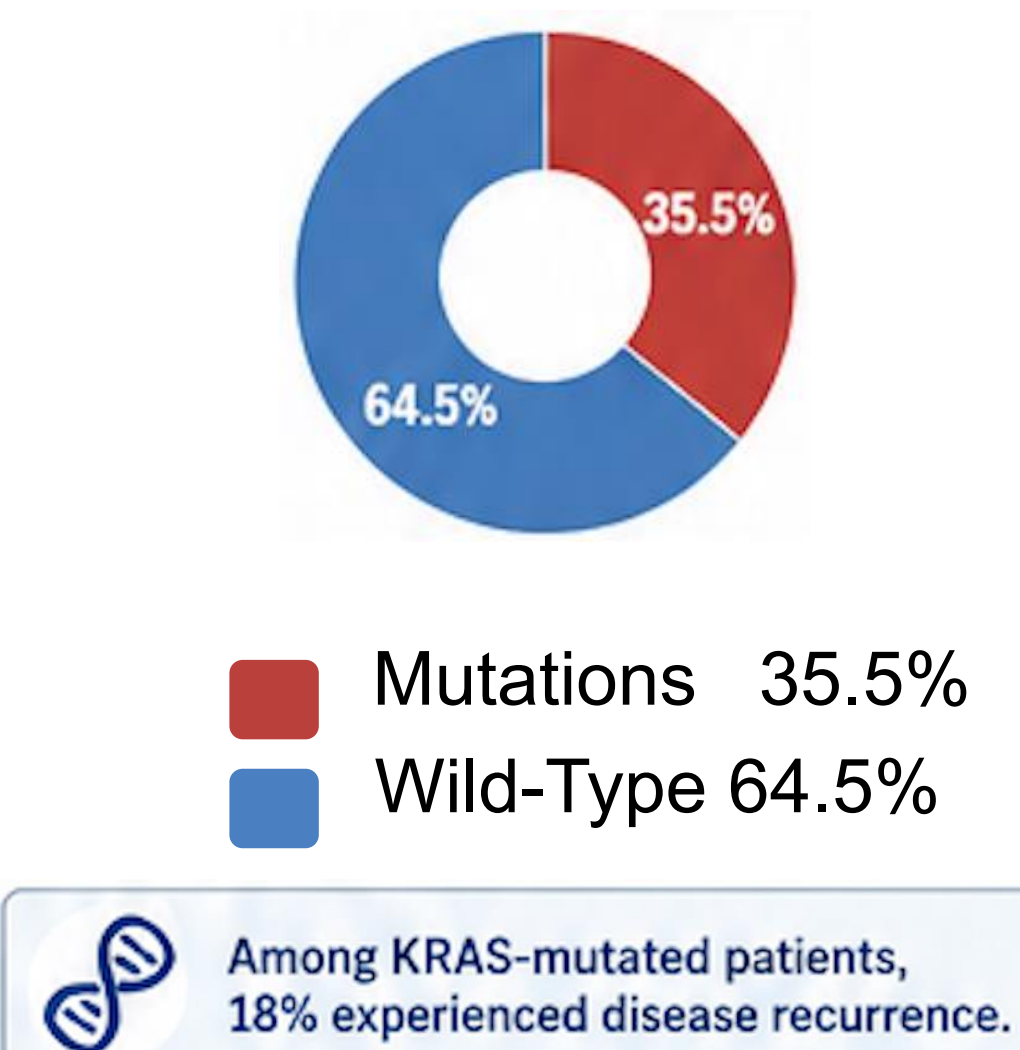
Stage at Diagnosis (n=31)



PD-L1 Tumor Proportion Score (TPS)



KRAS Mutation Status



CONCLUSIONS

- Neoadjuvant chemo-immunotherapy demonstrated a meaningful pathologic response rate and acceptable safety in a real-world cohort of patients with operable NSCLC.
- These findings support the clinical effectiveness of this treatment strategy outside clinical trial settings but results of EFS and OS are less optimal, as our cohort had 56.7% of stage III patients and most of them were PD-L1 negative.
- Although the sample size is limited, we found that patients with KRAS mutation did worse. This needs further investigation.

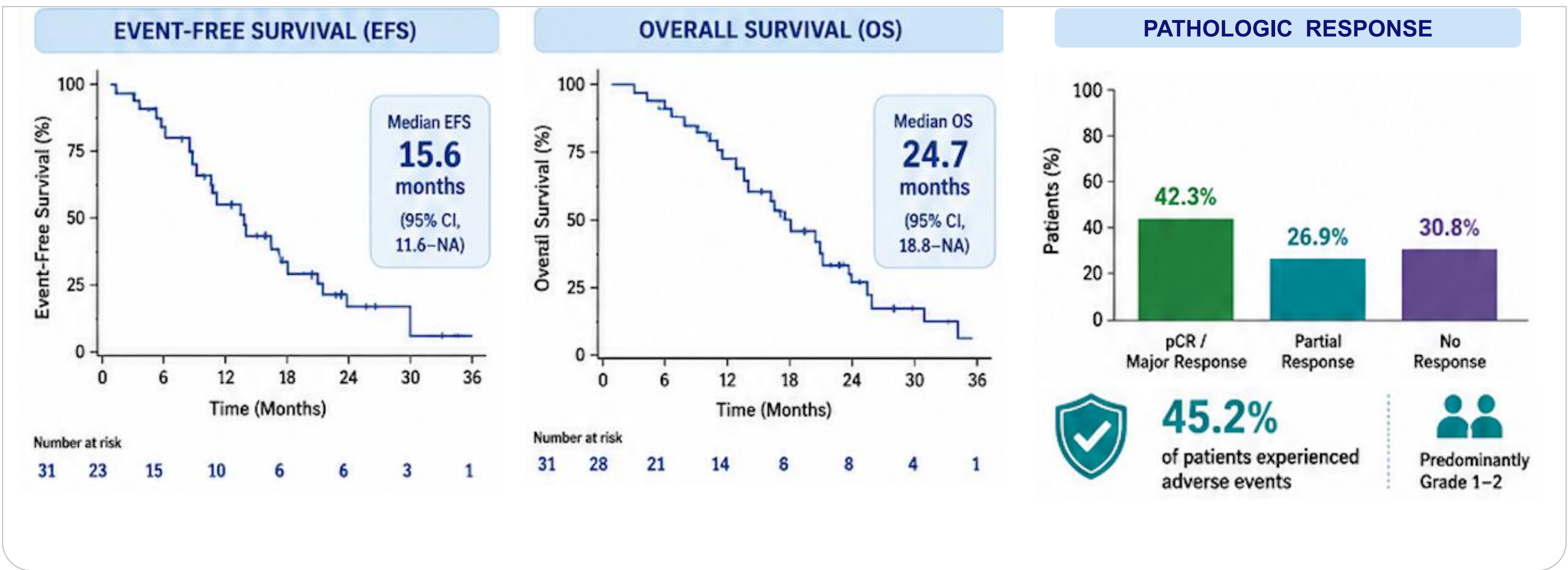
KEY FINDINGS

- Mean age at diagnosis: **69.5 years**
- KRAS mutation in **35.5%** of patients
- pCR/Major response rate **42.3%**
- Adverse events in **45.2%** of patients, mostly gr 1-2

FUTURE DIRECTIONS

- The study will aim to determine the long-term event free and overall survival.
- We plan to look into the biomarkers after progression using mutational analysis
- We will recruit more patients and collaborate with other centers to get a bigger sample size.

RESULTS



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