BURDEN OF MYELOSUPPRESSION IN EXTENSIVE-STAGE SMALL-CELL LUNG CANCER PATIENTS RECEIVING CHEMOTHERAPY: RETROSPECTIVE ANALYSIS OF REAL-WORLD DATA FROM TENNESSEE ONCOLOGY

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BACKGROUND

- Myelosuppression is common in patients with advanced solid tumors who use chemotherapy treatment, and poses a high burden for patients and oncology practices.
- Previous retrospective real-world studies reported that chemotherapy-induced myelosuppression has significant burden on patients with small cell lung cancer (SCLC) in community oncology practices.
- This study described the burden of myelosuppression among patients with extensive-stage small cell lung cancer (ESSCLC) treated with chemotherapy using data from Tennessee Oncology (TNO), one of the largest community-based cancer care specialists in the US that provides cancer care at 53 locations.

OBJECTIVES

- To describe cytopenia-related and all-cause healthcare resource use (HRU) among the same population.
- To describe the prevalence of myelosuppression as assessed by hematologic adverse events (HAE).
- To describe cytopenia-related and all-cause healthcare resource use (HRU) among the same population.

METHODS

- **STUDY POPULATION**
  - Inclusion criteria:
    - Patients initiated chemotherapy or chemotherapy + immunotherapy at TNO from January 2020 to June 2022 following a documented ES-SCLC diagnosis.
    - Patients ≥18 years of age on date of chemotherapy initiation.
  - Exclusion criteria:
    - Anemia: Grade 3: hemoglobin < 8.0 g/dL
    - Thrombocytopenia: Grade 3: platelets ≥25,000/μL to < 50,000/μL; Grade 4: platelets < 25,000/μL
    - Neutropenia: Grade 3: ANC ≥500/μL to < 1000/μL; Grade 4: ANC < 500/μL

- **STUDY DESIGN**
  - Baseline Period:
    - Adult patients with ES-SCLC who received chemotherapy (with or without immunotherapy) were identified from January 2020 to June 2022 following a documented ES-SCLC diagnosis.
  - Follow-up Period:
    - Index date through end of follow-up

- **OUTCOMES**
  - Cytopenia-related HRU
  - All-cause related HRU

- **DISCLOSURES**
  - ECOC, Eastern Cooperative Oncology Group; ES-SCLC, extensive-stage small-cell lung cancer; SD, standard deviation.
  - Abbreviations:
    - ECOG, Eastern Cooperative Oncology Group; ES-SCLC, extensive-stage small-cell lung cancer; SD, standard deviation.

- **RESULTS**
  - Continuous variables were described with means and standard deviations. Categorical variables were described with frequencies and proportions.
  - Figure 1: Retrospective Study Design Overview

- **CONCLUSIONS**
  - There are several limitations to this study, including:
    - Patients only received immunotherapy if prescribed by their treating oncologist.
    - Inconsistent over time and results compared to past similar studies.

- **LIMITATIONS**
  - Consistent with other published studies, there is high patient burden associated with traditional management of myelosuppression in patients with ES-SCLC in a community oncology practice like TNO, indicating we cannot rely on this population.
  - Therapies to reduce bone marrow suppression from myelosuppression have potential to reduce such burden.

REFERENCES

- American Society of Clinical Oncology Quality Care Symposium
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