

Pharmacoeconomic Burden and Prevalence of Chemotherapy-Induced Peripheral Neuropathy and Its Impact on Health-Related Quality of Life in Oncology Patients

EPH31

Jayasutha Jayram, PhD ¹; Manickavasagam Meenakshisundaram, MBBS, MD, DM ²; Srilekha Raguraman, B.Pharm ³; Sneha Raja, M.Pharm ^{3*}



¹ Sri Ramachandra Faculty of Pharmacy, SRIHER (DU) • ² Department of Medical Oncology, SRIHER (DU) • ³ Student, SRIHER (DU), Porur, Chennai, Tamil Nadu, India.



BACKGROUND

Chemotherapy-Induced Peripheral Neuropathy (CIPN) is a common, dose-limiting adverse effect of anticancer therapy. It significantly affects patient's Health-Related Quality of Life (HRQoL) and leads to increased healthcare costs.

Comprehensive data on the pharmacoeconomic burden of CIPN in the Indian healthcare context remain limited, despite its recognized clinical significance - rationale of this study.

OBJECTIVES

To assess the prevalence and pharmacoeconomic burden of CIPN and its impact on HRQoL among oncology patients receiving chemotherapy.

METHODOLOGY

Prospective,
Observational, Cross-sectional study

January - April 2023
(4 months)

IEC approval:
CSP/24/NOV/153/415

Inclusion: age ≥ 19 years, confirmed malignancy, currently/previously on chemotherapy, able to consent in Tamil/English

Exclusion: pre-existing non-chemo neuropathy, cognitive impairment, communication barriers

120

Patients Enrolled

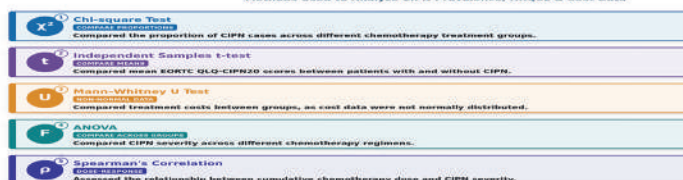
Data Collection Tool Used
S-LANSS
EORTC QLQ-CIPN20
CTCAE v5.0

Study Flow



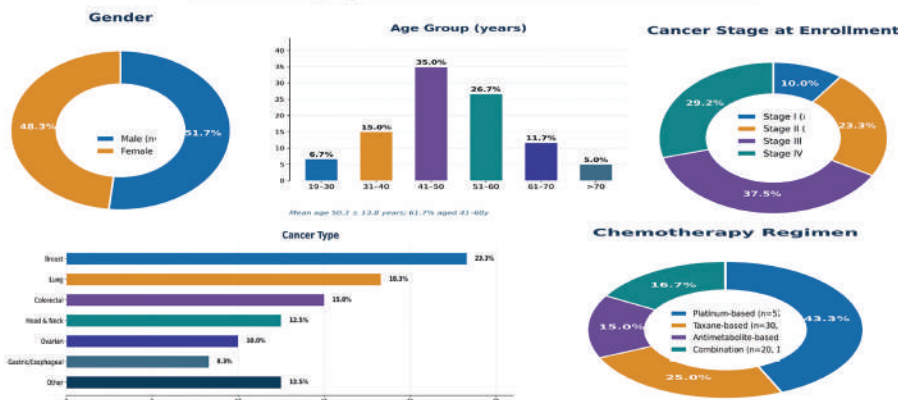
Statistical Analysis

Methods Used to Analyze CIPN Prevalence, HRQoL & Cost Data

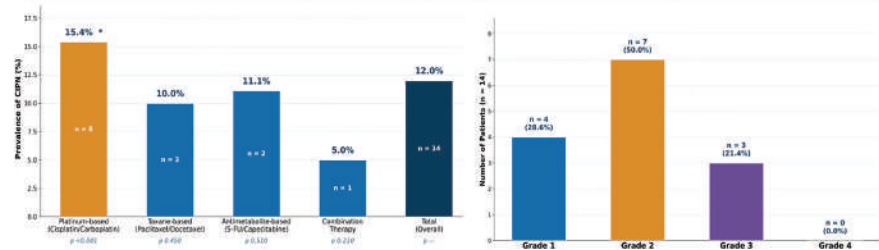


RESULTS

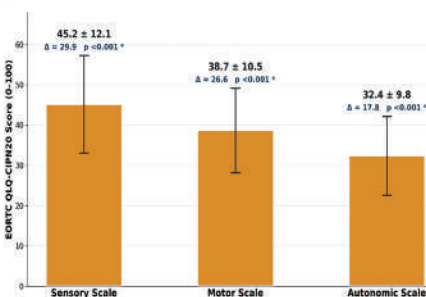
Demographics and Clinical Characteristics



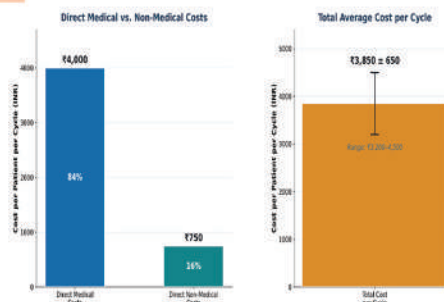
Prevalence of Chemotherapy-Induced Peripheral Neuropathy & Severity of CIPN According to CTCAE Grading



Comparison of EORTC QLQ-CIPN20 Scores Between Patients With and Without CIPN



Pharmacoeconomic Burden of CIPN



CONCLUSION

- 12.0%** CIPN prevalence overall — highest with platinum-based chemotherapy (15.4%).
- CIPN significantly impaired HRQoL across sensory, motor & autonomic domains.
- +INR 3,300** Additional pharmacoeconomic burden per chemotherapy cycle due to CIPN.
- Older age (≥ 60 y) and higher cumulative chemotherapy dose were significant risk factors.
- Routine screening and early management are essential to reduce clinical & economic burden.

Study Limitations

Small CIPN subgroup
Single centre study design

Future Directions

Multicenter Studies
Pharmacogenomic studies

Contact and Disclosure:

Sneha Raja, Sri Ramachandra Institute of Higher Education and Research (DU), Tamil Nadu, India. Email: sneharaja92002@gmail.com; LinkedIn: www.linkedin.com/in/sneharaja-370606195