EFFICACY OF SINGLE LOW-DOSE DEXAMETHASONE WITH NEPA FOR THE 168H PREVENTION OF HIGHLY OR MODERATELY EMETOGENIC (HIGH-RISK PATIENTS) CHEMOTHERAPY INDUCED NAUSEA /VOMITING

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Introduction

Dexamethasone's multi-day use in chemotherapy cycles can cause significant side effects.

We were committed to reducing the exposure to corticosteroids in the management of chemotherapy-induced nausea and vomiting (CINV), ensuring therapeutic efficacy was preserved.

Methods

This single-center, retrospective study enrolled 100 solid tumor patients undergoing moderately emetogenic chemotherapy (MEC, high-risk patients) or highly emetogenic chemotherapy (HEC).

Patients were administered a single low-dose dexamethasone (DEX, 8 mg) and NEPA prior to each chemotherapy cycle.

The primary efficacy endpoint was the complete response (CR: no emesis, no rescue medication) within 0-168 hours post-chemotherapy initiation in cycle 1.

The main secondary endpoints were CR during the acute (0-24 hours), delayed (24-120 hours), and long-delayed (120-168 hours) phases.

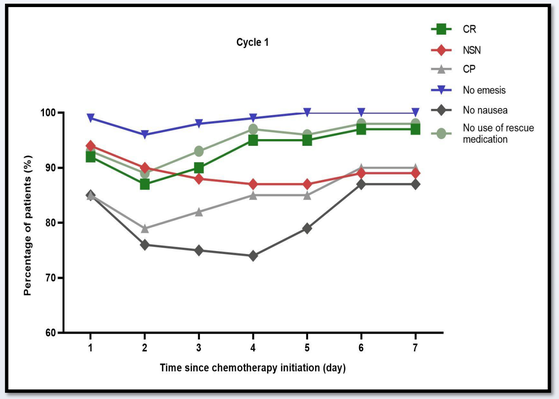

Figure 1. Line graph showing the proportion of patients with different CINV-related outcomes of cycle 1 up to 168 hours post-chemotherapy.

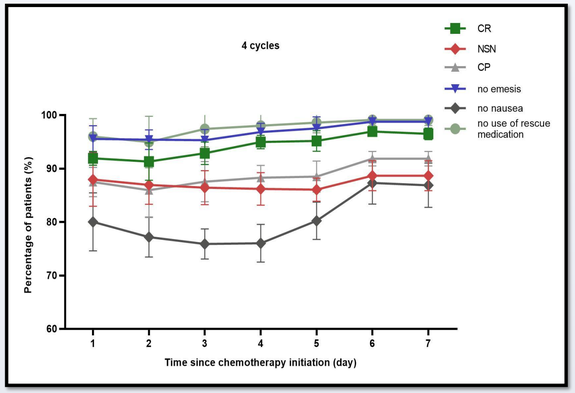

Figure 2. Line graph offering a comparative analysis of patient outcomes related to CINV, tracking changes over the course of four chemotherapy cycles.

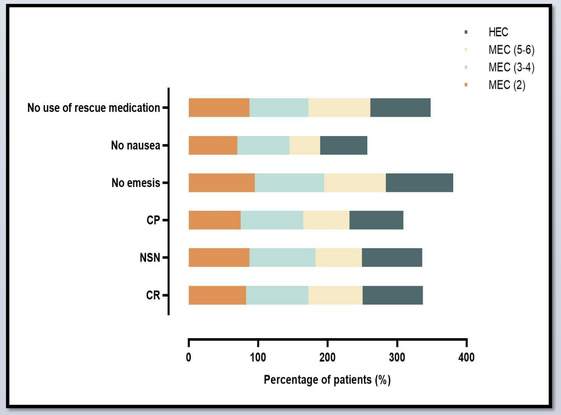

Figure 3. Efficacy assessments of CINV-related outcomes.`

Results

From August 2023 to April 2024, 100 patients completed 230 chemotherapy cycles (67.4% MEC, 32.6% HEC). CR rates increased from 85% in cycle 1 to 93.1% in cycle 4, with a slight decrease in CR during delayed versus acute phases. Patients with fewer risk factors had better outcomes, while those with 3-6 high-risk factors in MEC had poorer outcomes compared to HEC. Grade 1 or 2 AEs occurred in 78% of patients, with constipation and hyperglycemia being the most common. ECOG performance status and diabetes significantly associated with CR, achieving a sensitivity of 84.7% and specificity of 60.0% in predicting overall CR.

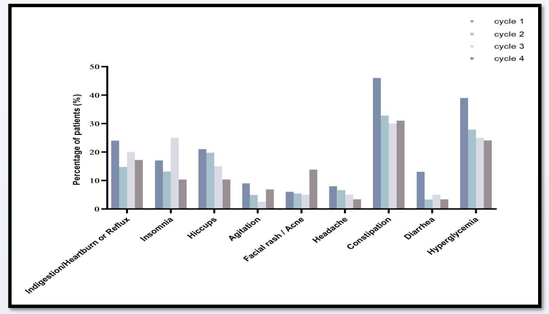

Figure 4. Treatment related adverse events

Discussion

Our study demonstrates that a single low-dose DEX (8 mg) combined with NEPA is effective and safe for the prevention of CINV in high-risk patients undergoing multiple cycles of MEC or HEC, offering an alternative to standard multi-day DEX regimens in CINV management.

References

1.Celio L, Cortinovis D, Cogoni AA, et al. Dexamethasone-Sparing Regimens with Oral Netupitant and Palonosetron for the Prevention of Emesis Caused by High-Dose Cisplatin: A Randomized Noninferiority Study. *The Oncologist*. 2021;26(10):e1854-e1861. doi:10.1002/onco.13851

2. Aapro M, Rugo H, Rossi G, et al. A randomized phase III study evaluating the efficacy and safety of NEPA, a fixed-dose combination of netupitant and palonosetron, for prevention of chemotherapy-induced nausea and vomiting following moderately emetogenic chemotherapy. *Ann Oncol*. 2014;25(7):1328-1333. doi:10.1093/annonc/mdu101