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731.AUTOLOGOUS TRANSPLANTATION: CLINICAL AND EPIDEMIOLOGICAL

Prevention of CINV in Patients with Multiple Myeloma or Lymphoma Undergoing Hematopoietic Stem Cell Transplantation: NEPA Versus Ondansetron. a Monocentric Real-Life Experience

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INTRODUCTION: Chemotherapy-induced nausea and vomiting (CINV) are adverse events that compromise quality of life and treatment compliance in patients undergoing autologous hematopoietic stem cell transplantation (ASCT). Polychemotherapy regimens, used as conditioning regimens for ASCT in lymphomas, and high-dose melphalan (≥140 mg/mq), used in multiple myeloma (MM), have high emetogenic risk. Control of CINV is difficult and there is no uniformity for its prophylaxis. Antiemetic guidelines recommend, for prophylaxis, co-administration of a triplet regimen of a serotonine (5-HT3) receptor antagonist (RA), as Ondansetron, a neurokinin-1 RA, and dexamethasone. Netupitant-Palonosetron (NEPA), an oral formulation derived from the combination of Netupitant (NK1-RA) and Palonsetron, has been approved as prophylaxis of CINV but its experience in the stem cell transplant setting is still limited.
AIMS: The primary aim of this study was to compare the efficacy of Ondansetron versus NEPA in terms of reduction of CINV in patients affected by lymphoma or MM who undergone ASCT. The secondary aims included comparing the duration of CINV, based on the use of Ondansetron or NEPA, and their safety profile in terms of reduction of extrahaematological toxicity (as mucositis or diarrhea).
METHODS: In this retrospective monocentric study, we enrolled 76 patients (48 with MM and 28 with lymphoma), who underwent ASCT between March 2021 and March 2022. All patients with MM received high dose of melphalan, those with lymphoma received FEAM. Regarding antiemetics patients were divided according to whether they received NEPA or Ondansetron **. Patients' characteristics are in Table 1.**
RESULTS: Among all, fifty patients (65%) reported CINV of any grade. In particular, the group experiencing CINV included about half of patients treated with NEPA (56%) and almost all those treated with Ondansetron (91%). Among the 26 patients who didn't report CINV (35%), the majority received NEPA (92%) **(P = 0.0032) (Fig. 1a).** Focusing on patients with MM, 33 experienced CINV (68%), and they were 59% of MM patients treated with NEPA and 93% of those treated with Ondansetron. Fifteen patients did not experience CINV (32%) and almost all of them (93%) had been treated with NEPA **(P = 0.037) (Fig. 1b).** Sixty-one percent of the 28 patients with lymphoma reported CINV **(P= 0.1914) (Fig. 1c).** Mean duration of CINV was significantly shorter for patients treated with NEPA than for those treated with Ondansetron (4.8 days vs 9.2 days) **(P= 0.002) (Fig. 1d).** Regarding extraematological toxicity of chemotherapy, as mucositis and diarrhea, we didn't find any significant difference between the two groups of patients. Regarding the outcome to NEPA, complete response rate (no emesis, no rescue medication) was 37% during overall phases of CINV, 28% of patients had complete control (complete response with no more than mild nausea) and 31% had uncontrolled nausea. Conversely, in the Ondansetron group, only 5% of patients had complete response and 95% had uncontrolled nausea **(Fig. 1e).** All patients with uncontrolled nausea required a rescue therapy. According to CTCAE, 69% of patients receiving NEPA had grade 1 nausea and 6% had none, while all patients receiving Ondansetron had CINV and 85% of them had grade 2 nausea.

CONCLUSIONS: In our experience, NEPA has shown superiority in the prevention of CINV, in highly emetogenic regimens in both patients with myeloma or lymphoma, with advantages on the severity and the duration of CINV. Given the high burden of CINV in the whole population analyzed in the study, regardless of the antiemetic used, it would be useful to identify patients at greatest risk and standardize CINV prophylaxis and treatment protocols depending on the different chemotherapy regimens and their emetogenic risk.

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Overall, 76 patients undergoing ASCT (March 2021-March 2022)		Multiple Myeloma	Lymphoma
Number of patients		48	28
Median age, years		61	61
Conditioning Regimen		Melphalan	FEAM
Type of antiemetic received	NEPA, n	33*	21**
	Ondansetron***, n	15	7

*(one shot the day of conditioning); ** every 72 hours during conditioning; ***twice daily during conditioning.
Table 1. Patients' characteristics.

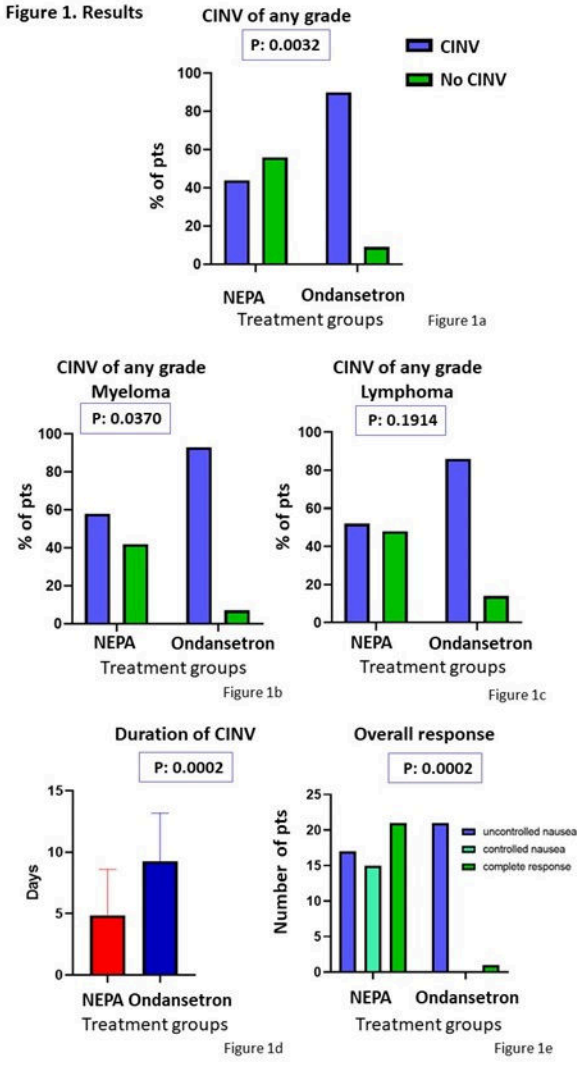

Figure 1

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