Evaluation of palonosetron plus apreiptant and dexamethasone to prevent nausea and vomiting in patients receiving highly ematogenic chemotherapy, Real world experience

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Background:

CINV remains a distressing adverse effect of cancer treatment. This study tries to use evidence-based approach in real world practice to test the efficacy of triple therapy (palonosetron, aprepitant and dexamethasone) to manage CINV for patients receiving highly emetogenic chemotherapy regimens.

Methods:

Prophylactic therapy with palonosetron, aprepitant and dexamethasone was given to patients receiving high ematogenic regimens. (MAT) tool was used to assess CINV and risk assessment for each patients was done using a tool developed internally.

Results:

114 patients receiving high ematogenic regimens AC and Cisplatin based regimen consented to participate. The incidence of acute nausea was 45.6% and delayed nausea was 65.8%, while the incidence of acute vomiting was 7.0% and delayed vomiting was 18.4%.

By comparing the two groups, the incidence of acute & delayed nausea was higher in the AC group more than the platinum group (acute: 46.4% vs 41.2%, p value = 0.6) (delayed: 69.1% vs 47.1%, p value = 0.07). Whereas the incidence of acute & delayed vomiting was higher in the platinum group (acute: 11.8% vs 6.2%, p value = 0.3) (delayed: 29.4% vs 16.5%, p value = 0.3). Female gender, and history of motion sickness were significantly correlated with acute nausea score (p = 0.05, 0.003) and delayed nausea score (p= 0.01, 0.01) respectively. The total risk score that is also dependent on gender, age, history of anxiety/depression, motion sickness, alcohol consumption and type of chemotherapy received was significantly correlated to acute & delayed nausea score (p= 0.007, 0.04) respectively.

		N	%
Age Group	=>50	62	54.3%
	<50	52	45.6%
Gender	Male	12	10.6%
	Female	102	89.4%
History of anxiety or depression	No	111	97.3%
	Yes	3	2.6%
Nausea/vomit during pervious Chemotherapy cycles	No	114	100.0%
	Yes	0	0.0%
Motion sickness or morning sickness in the past	No	97	85.0%
	Yes	17	15.0%
Consuming alcohol	No	114	100.0%
	Yes	0	0.0%
Total score	Mean± SD	1.53±0.79	
	Min-Max	0-4	
	Median(IQR)‡	1(1-2)	

Table 1: *Description of personal and medical characteristics among all cases*

		Acute No of Vomiting episode	Acute Score of Nausea
Total score	R	-0.158	0.255
	P	0.094	**0.007**
	Sig	NS	**HS**

Table 2: *Correlations between total risk score and number/score of acute vomiting and nausea*

		Delayed No of Vomiting episode	Delayed Score of Nausea
Total score	R	-0.146	0.192
	P	0.124	**0.042**
	Sig	NS	**S**

Table 3: *Correlations between total risk score and number/score of delayed vomiting and nausea*

Conclusion:

A triple antiemetic regimen with Palonosetron, aprepitant and dexamethasone is showing considerably high inhibition rate for controlling CINV, yet better results might be possible with risk assessment prior to chemotherapy initiation to identify patients at risk for more personalized treatment approaches.

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No conflicts of interest to declare