

Oral Betahistine Versus Intravenous Diazepam in Acute Peripheral Vertigo: A Randomized, Double-Blind Controlled Trial

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Abstract : Objectives: Peripheral vertigo is a common complaint of patients who are visited in emergency departments. In our study, we wanted to evaluate the effect of betahistine as an oral drug vs. intravenous diazepam for the treatment of acute peripheral vertigo. We also wanted to see the possibility of substitution of parenteral drug with an oral one with fewer side effects. Materials and Methods: In this randomized, double-blind study, 101 patients were enrolled in the study. The patients were divided in two groups in a double-blind randomized manner. Group A took oral placebo and 10 mg of intravenous diazepam. Group B received 8mg of oral betahistine and intravenous placebo. Patients' symptoms and signs (Vertigo severity, Nausea, Vomiting, Nistagmus and Gaze) were evaluated after 0, 2, 4, 6 hours by emergency physicians and data were collected by a questionnaire. Results: In both groups, there was significant improvement in vertigo (betahistine group $P=0.02$ and Diazepam group $P=0.03$). Analysis showed more improvement in vertigo severity after 4 hours of treatment in betahistine group comparing to diazepam group ($P=0.02$). Nausea and vomiting were significantly lower in patients receiving diazepam after 2 and 6 hours ($P=0.02$ & $P=0.03$). No statistically significant differences were found between the groups in nistagmus, equilibrium & vertigo duration. Conclusion: The results of this randomized trial showed that both drugs had acceptable therapeutic effects in peripheral vertigo, although betahistine was significantly more efficacious after 4 hours of drug intake. As for higher nausea and vomiting in betahistine group, physician should consider these side effects before drug prescription.

Keywords : acute peripheral vertigo, betahistine, diazepam, emergency department

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