



## Effects of Intraoperative Dexamethasone and Ondansetron on Postoperative Nausea and Vomiting in Patients undergoing Microvascular Decompression Surgery in Srinagarind Hospital

Cattleya Thongrong<sup>1,\*</sup>, Patitha Chullabodhi<sup>1</sup>, Amnat Kitkhuandee<sup>2</sup>, Narin Plailaharn<sup>1</sup>, Lumyai Sabangban<sup>1</sup>, Thirada Jimarsa<sup>1</sup>

<sup>1</sup>Department of Anesthesiology, Faculty of Medicine, Khon Kaen University

<sup>2</sup>Division of Neurosurgery, Department of surgery, Faculty of Medicine, Khon Kaen University

\*Corresponding author : Cattleya Thongrong , E-mail : jupiters66@gmail.com

### Oral

**Background:** Postoperative nausea vomiting (PONV) is common complication occur in 24 hr following anesthesia and surgery. PONV was related many operations especially the neurosurgery. From reviewed literature, patients who undergo microvascular decompression surgery (MVD) usually have PONV (40-70%, without PONV prophylaxis). Thus, the MVD was prototype for researching PONV.

**Objective:** To study and evaluate the first 24 hr. PONV treatment outcome with dexamethasone and ondansetron intraoperative administration in the patients who undergo MVD surgery.

**Methods:** The prospective, double blinded, randomized control trial studied in 54 patients undergoing MVD. Patients were divided into two group (27 patients/gr.), the study group (Gr.D) received intraoperative dexamethasone 4 mg iv and ondansetron 4 mg iv whereas the control group (Gr.N) received placebo (NSS 1 ml iv and NSS 2 ml iv). After operations were done, within first 24 hr, incidence and severity of PONV were evaluated, altogether with pain score, satisfactory of the less occurring PONV, the additional amount of requested antiemetic and opioid were also recorded.

**Results:** The incidence and severity of PONV in postoperative 1, 2, 4 and 24 hr were not statistical significant differences in Gr.D compared with Gr.N. In part of postoperative pain score, number of patients who need antiemetic drug, additional doses of antiemetic and opioid drugs, satisfactory of reducing PONV in first 24 hr were no statistically significant difference between the control group and the study group.

**Conclusion:** Incidence and severity of PONV, postoperative pain score, number of patients who need additional antiemetic, additional doses of antiemetic and opioid, satisfactory of reducing PONV in first 24 hr were no statistically significant difference between boths. So, we suggest increased sample size or increase dexamethasone and ondansetron dose or add other drugs to prevent PONV.

**Keywords:** postoperative nausea vomiting, PONV, neurosurgery, microvascular decompression surgery, MVD, dexamethasone, ondansetron

