

# The Efficacy of Intravenous Ondansetron in the Prevention of Post-anesthesia Shivering: A Randomized Controlled Study



Riza Mimosa A. Parcon, MD  
Joy Ann R. Lim, MD

Philippine Children's Medical Center  
Section of Perinatal Anesthesia

**INTRODUCTION** Post-anesthesia shivering (PAS) is a common phenomenon; around 50% in both general and neuraxial anesthesia. PAS results in patient discomfort with physiologic consequences, which can be detrimental in patients with limited reserves. Commonly used anti-shivering drugs are either being regulated or with side effects that are bothersome. In search for an accessible treatment that is safe to the mother and her neonate, the researcher ventured for the use of Ondansetron that depicts not only its anti-shivering effect as studies abroad would claim, but it is also a well-known anti-emetic that adds to the significance of its use.

**OBJECTIVE** To determine the efficacy of Intravenous Ondansetron in preventing PAS among pregnant patients for cesarean section.

**METHODS** Seventy pregnant patients who will undergo Cesarean section under Spinal or Epidural anesthesia from January 2020 to August 2020 were enrolled to receive either NSS or Ondansetron via computerized double-blind randomization.

**RESULTS** PAS prevention significantly favored Ondansetron 4mg over NSS. The duration of PAS and incidence of side effects (PONV) were also in favor of Ondansetron (<0.001). No morbidity occurred all throughout the study.

**CONCLUSIONS** Intravenous Ondansetron is effective in preventing and/ or attenuating PAS. The lowest dose used is safe for both the mother and her neonate.

**RECOMMENDATIONS** Additional studies can help elucidate the anti-shivering effectiveness of Ondansetron during other procedures like NSD or for patients under General anesthesia. A study comparing different doses of Ondansetron may also be recommended.

Keywords: post-anesthetic shivering, spinal anesthesia, epidural anesthesia, pregnant patients, ondansetron