

ABSTRACT**The Effect Of 5-HT₃ Receptor Antagonist On Slowing Gastric Mucosa Healing By SSRI In Animals With Stress-Induced Gastric Ulcer****Elma Oktavia Hanaratri**

Peptic Ulcer Disease is a condition of mucosal erosion on the stomach wall. Stress is one of the risk factors that cause gastric ulcers through activation of HPA axis which affects the vagus nerve stimulation and increases gastric acid secretion. Previous studies had shown that administering fluvoxamine after stress induction inhibits gastric mucosa healing because of activation 5-HT₃ receptor that can stimulate the vagus nerve. This study aims to analyze effect of ondansetron on gastric mucosa healing by fluvoxamine in animals with stress-induced gastric ulcers from the ulcer area, and intraluminal bleeding as the parameters. The experimental animals were induced with stress using water immersion plus restraint stress method for 6 hours. Ondansetron 3mg/kg was intraperitoneally administered shortly after stress induction. Fluvoxamine 100mg/kg was orally administered on 30 minutes after stress, and then mice were sacrificed at 0, 6 and 18 hours after stress. This study showed that vehicle group showed a significant decrease in ulcer index when compared to stress group at 6 and 18 hours after stress. While fluvoxamine group just showed gastric mucosa healing at 18 hours after stress. Meanwhile, the 18th hour of ondansetron and fluvoxamine combination did not show any significant decrease in the ulcer index and intraluminal bleeding scores when compared with stress group This is probably due to the tendency of PGE₂ inhibition in the stomach, also possible activation of other 5-HT receptors. This result showed that combination of ondansetron and fluvoxamine after stress induction led to prolonged inhibition of gastric mucosa healing.

Keywords : Ondansetron, fluvoxamine, gastric ulcer, stress