

**EXPRESSION ANALYSIS OF COX-1 AND COX-2 mRNA WITH
PCR IN GASTRIC ULCER INDUCED BY STRESS USING
FLUOXETINE ANTIDEPRESAN THERAPY**

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ABSTRACT

Gastric ulcer is a mucosal damage normal mucosa extending from muskularis to the submucosa or more caused by multiple causes. One of the causes of the occurrence of gastric ulcer that is stressful, even though the underlying mechanism is not yet known for sure. The possibility of a mechanism that can cause the effect of gastric ulcer caused by stress namely an imbalance between aggressive factors and factors of gastric mucosa at protetktif. COX has an important role in the process increased prostaglandin (PG), where the PG function as protectors on gastric mucosa. So this research was conducted to find out the alternatives to drug use to prevent gastric ulcer caused by stress. This research aims to know the effect of SSRI antidepressants Fluoxetine gastroprotective against gastric ulcer and to see the changes that occur at the mRNA expression of COX-1 and COX-2 in normal samples and ulcer. The stress model used in this research was water immersion restrain stress for 6 hours. Drugs treated with experimental animals are SSRI Fluoxetine antidepressants with a dose of 10 mg / kgBB and 20 mg / kgBB with oral medication. Administration of antidepressants 30 minutes before stress induction. The method used to view COX-1 and COX-2 expressions is PCR (Polymerase Chain Reaction) using a sample of ± 0.5 cm. The results showed that there is an ulcer on the stress-induced group vs. control group ($p < 0.05$). On the giving of fluoxetine 10 mg/kg decreased ulcer significantly ($p < 0.05$). analysis of the mRNA expression of COX-1 and COX-2 expression increased gained at the granting of fluoxetine 10 and 20 mg/kg. This can be due to the granting of fluoxetine may affect an increase in mRNA expression of COX-1 and COX-2.

Keyword : Fluoxetine, gastric ulcer, PCR, mRNA COX-1, mRNACOX-2, stress.