

**ABSTRACT**  
**EFFECT OF VARIOUS DOSE OF HYLOCEREUS POLYRHIZUS PEEL'S**  
**ETHANOLIC EXTRACT ON INTERLEUKIN-6 CONCENTRATION,**  
**CASPASE-3 EXPRESSION, AND NUMBER OF APOPTOTIC GRANULOSE**  
**CELL**

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*One of the infertility mechanisms associated with endometriosis is the immune response in peritoneal cavity in the form of increased macrophages and excessive secretion of some cytokine such as IL-6 which binds to its receptors leading to activation of NF- $\kappa$ B in granulosa cells inducing genes involved in inflammatory and apoptotic responses. The secretion of the cytokine is inhibited by preventing the activation of NF- $\kappa$ B using the extract of red dragon fruit peel. This research is aimed at studying the effect ethanol extract taken from red dragon fruit peel with doses of 0.25; 0.5; and 1mg/g Body weight to IL-6 concentration, caspase 3 expression and number of apoptotic granulosa cell in endometriosis mice model. The sample consisting of 30 female mice were divided into 5 for each groups. The groups were of negative group, positive group, and graded dose treatment group. Positive control and treatment were endometriosis for 14 days, the next 14 days negative and positive group were given 0.5% Na-CMC solution, while treatment group was given graded doses. This type research is true experimental using the randomized post test only control group experimental. The results of this research significant differences in IL-6 concentration, caspase-3 expression, and number of apoptotic granulosa cell in the control and treatment groups. Extract of hylocereus polyrhizus peel on endometriosis mice can suppress IL-6 concentration, caspase-3 expression, and number of apoptotic granulosa cell with  $p < 0.05$  significance.*

*Keywords : hylocereus polyrhizus, endometriosis, IL-6, caspase-3, apoptotic granulosa cell*