PROTECTIVE POTENTIAL OF RED DRAGON FRUIT (*Hylocereus polyrhizus)* PEEL EXTRACT ON MOTILITY, VIABILITY SPERMATOZOA AND LEYDIG CELLS AT MICE (*Mus musculus*) INDUCED BY CADMIUM CHLORIDE

Linda Puspita Sari

ABSTRACT

This research aims to determine the potential of red Dragon Fruit (*Hylocereus polyrhizus*) peel extract for motility, viability spermatozoa and amount of Leydig cells in the testis of mice induced to cadmium chloride. The experimental animals use are 30 mice with 25-30 gram average body weight. The treatments were divided into 5 groups and each group got 4 repetitions. K- as control was treated with CMCNa 1% without red Dragon Fruit peel extract and cadmium chloride. K+ as control was treated with cadmium chloride 5 mg/KgBW. P1 was the group treated with administration of cadmium chloride 5 mg/KgBW and red Dragon Fruit peel extract 250 mg/KgBW. P2 was the group treated with administration of cadmium chloride 5 mg/KgBW and red Dragon Fruit peel extract 500 mg/KgBW. P3 was the group treated with administration of cadmium chloride 5 mg/KgBW and red Dragon Fruit peel extract 100 mg/KgBW. Each treatment was given peroraly along 31 days. The data of sperm motility were analyzed using Kruskall Wallis continued with Mann Whittney U, but the data of sperm viability and Leydig cells amount were analyzed using ANOVA (Analysis of Varience) continued with honestly significant difference test ($p<0,05$). The result in sperm motility showed significant differences ($p<0,05$) between the groups K+ with K-, P1, P2 and P3. The result in sperm viability showed significant differences ($p<0,05$) between the groups K+ with K-, P1, P2 and P3. The result in Leydig cells amount showed significant differences ($p<0,05$) between the groups K+ with K- and K+ with P3. In conclution, administration of red Dragon Fruit peel extract can maintain the motility, viability of spermatozoa and Leydig cells amount of induce by cadmium chloride.

Keywords **:** *Hylocereus polyrhizus*, cadmium chloride, motility, viability, Leydig cell