

## **ABSTRACT**

### **CURATIVE EFFECT OF GIVING WHITE DRAGON FRUIT JUICE SUPPLEMENT (*Hylocereus undatus*) TO SPERMATOZOA MOTILITY, CONCENTRATION, AND MORPHOLOGY OF MALE WHITE RAT (*Rattus norvegicus*) Sprague dawley STRAIN INDUCED CYPROTERONE ACETATE**

**By**

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**Background:** Infertility is a disease of the reproductive system as a failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. Infertility occurs more than 20% of the population in Indonesia. Need to be sought infertility drugs that are safe and can improve sperm quality by white dragon fruit juice supplement. This study aims to determine effect of supplementation white dragon fruit juice on motility, concentration, and morphology of male rats spermatozoa induced cyproterone acetate.

**Methods:** Study used 24 rats were divided into 4 groups. K1 fed standard, P1 given juice white dragon fruit 1 ml for 24 days, P2 induced cyproterone acetate 2 mg for 7 days, and P3 are induced cyproterone acetate 2 mg for 7 days first and then supplemented juice white dragon fruit 1 ml for 24 days.

**Results:** The mean percent sperm motility K, P1, P2, and P3 was  $58 \pm 8.37$ ,  $90.33 \pm 10.89$ ,  $57.33 \pm 31.33$ , and  $82.33 \pm 14.8$ . Mean number of spermatozoa was  $44.4 \pm 10.04$ ,  $70.8 \pm 25.95$ ,  $48 \pm 23.58$ , and  $91.2 \pm 47.72$ . Mean percent of normal morphology spermatozoa was  $61.8 \pm 8.87$ ,  $64.8 \pm 12.83$ ,  $45.4 \pm 19.01$ , and  $63.4 \pm 3.58$ .

**Conclusion:** White dragon fruit juice can increase the motility, concentration, and morphology spermatozoa.

**Keywords:** Cyproterone acetate, infertility, spermatozoa, white dragon fruit juice