

Jauharotus Shobahah, 2012, The Effect of Polysaccharide Crestine of *Coriolus Versicolor* Mushroom Extract on The Quality of Sperm Mice (*Mus Musculus*), this thesis was supervised by Dr. Sri Puji Astuti W. Dra. M.Si dan Dr. Alfiah Hayati, Biology Department of Faculty of Science and Technology , Airlangga University, Surabaya.

ABSTRACT

This study aimed to know the effect of polysaccharide cretine of *Coriolus Versicolor* mushroom extract on the quality of sperm mice (*Mus Musculus*). Twenty four male mice aged 8-10 week, 25-30 g weight were used as experimental animals which were divided into four groups (1 controlled group and 3 treatment groups) which consisted of 6 animals for each. The first group was the controlled group (P₀) that aquades 0,1 mL was daily put by *gavage* for 62 days. On the other hand, the treatment groups (P₁, P₂, and P₃) were treated by giving polysaccharide cretine derived from *Coriolus Versicolor* mushroom extract with 3 different doses, such as: 1,5; 3,0; dan 6,0 mg/kg BB for 62 days. The sperms were collected from epididymis cauda. The parameters of a given sperm quality were motility speed, morphology, viability, and the number of sperms. Further, the data were analyzed by employing one-way ANOVA. This study resulted that the sperm motility speed of controlled group was higher; that was, (5,487 $\mu\text{m}/\text{second}$) compared to the three treated groups; they were in order: 4,768; 4,345; and 4,197 $\mu\text{m}/\text{second}$. The normal morphology of controlled group was also higher (98,88%) rather than those of three treated groups: 97,90; 93,82; and 91,28%. Sperm viability of controlled group was higher (81,92%) as well than the three treated groups; they were subsequently: 77,98; 76,62; and 49,80%. Meanwhile, the sperm number of controlled group was lower ($3,55 \times 10^6$ cell/mL) compared to three treated groups; they were increasingly were: 4,59; 5,23; and $5,56 \times 10^6$ cell/mL. The conclusion could be drawn that giving polysaccharide cretine of *Coriolus Versicolor* mushroom extract could increase the number of mice sperm and decrease the normal morphology, viability, and motility speed as well.

Key words : *polysaccharide cretine, Sperm quality, Mus musculus.*