THE EFFECTS OF PAPAYA SEEDS (*Carica papaya* Linn) SQUEEZED-OUT ON MOTILITY, VIABILITY AND SPERM MEMBRANE INTEGRITY

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**ABSTRACT**

This research due to conclude the motility, viability and sperm membrane integrity after given various of papaya seeds (*Carica papaya* Linn) squeezed-out and the spread times treatment. The experiment used fresh semen of ram in Veterinary Medicine Faculty, Airlangga University. Before treatment, ram semen were examined by macroscopy and microscopy. Papaya seed were squeezed by physiological NaCl. The treatments contained Hank’s solution as negative control (P1), papaya seed squeezed-out within concentration 1% (P2), 3% (P3), 9% (P4), 27% (P5) and nonoxynol-9 as positive control (P6). After given treatments, each of them were examined the motility, viability and sperm membrane integrity at 30 (T1), 60 (T2), 90 (T3) and 27 minutes (T4) by using microscope. The sperm viability examinations were carried out by nigrosin-eosin and for sperm membrane integrity used hypo osmotic swelling solution. The results of experiment were analyzed by Anova two factors interaction and continued with Duncan’s multiple range test if the significant differences were found out. The motility, viability and sperm membrane integrity started to decrease at 1% concentration of papaya seed squeezed-out. The most effective treatment reducing sperm quality occurred at 27% concentration (although within time difference of each parameter) that insignificantly difference with Nonoxynol-9 (positive control).

*Key words*: *Carica papaya*, papaya seed, sperm quality, nonoxynol-9