EFFECTS OF *Centella asiatica* (TAKIP-KOHOL) TO THE EMBRYONIC DEVELOPMENT OF *Danio rerio* (ZEBRAFISH)

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ABSTRACT

In this study, the extract of *Centella asiatica*, a perennial herb that is widely used for treating neuropathic disorders, was used to determine whether there would be an effect on the development and rate of growth of *Danio rerio* embryo. For this purpose, treatment to ten percent, five percent, and one percent of pure *Centella asiatica* extract per part of total embryo medium was induced to sphere stage embryos to achieve synchronicity. Results from tests showed that it had an arresting effect to the development of the test embryo. Ten percent of extract per part of 2000µl embryo medium demonstrated developmental arrest of growth at the sphere stage; five percent concentration extract showed developmental arrest after the fifty percent epiboly stage. Embryos induced with one percent concentration of extract showed a delay of an hour prior to sphere stage. Developmental arrest of embryo was at shield stage or the 8th hour of development of the control group. All findings were compared to the control group which showed a normal rate of development at 25^{o}C-29^{o}C. The results demonstrate that at higher concentrations of pure *Centella asiatica* extract induced at the sphere stage of *Danio rerio* embryo, the development arrest was at higher rate.

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