De La Salle University - Dasmariñas
BIOLOGICAL SCIENCES DEPARTMENT

ANGIOGENIC EFFECT OF *Cucurma longa* L. (TURMERIC) TEA POWDER ON THE CHORIOALLANTOIC MEMBRANE OF 10-DAY OLD *Annas luzonica* (DUCK) EGGS

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ABSTRACT

Angiogenesis is a normal process in the body characterized by the formation of new blood vessels from existing vasculature. Abnormal angiogenesis is a denominator of many diseases such as arthritis, tumor growth, metastasis, poor wound healing, and blood circulation. The study evaluated the effect of different concentrations of *Cucurma longa* L. tea powder on the angiogenesis of 10-day old duck embryos. 500 mg of the *C. longa* tea powder was used in preparing the stock solution for 100ppm (T_1), 200ppm (T_2), and 300ppm (T_3) experimental treatments. These were administered on the chorioallantoic membrane (CAM) of 10-day old duck embryos. After 48 hours, the secondary collaterals on the CAM were counted and compared with the control group and with each of the experimental groups. Results reveal that *C. longa* L. tea powder suppressed angiogenesis. The study found out that 200 ppm (T_2) and 300 ppm (T_3) significantly yielded anti-angiogenic effect. The control group (T_0) and 100ppm (T_1) has no significant difference which can be attributed to low amount and partial solubility of the phytochemicals in water. The synergistic effect of the phytochemicals present in *C.longa* powder, such as curcumin, quecetin, vitamin C, and vitamin E can affect various steps in angiogenesis. These can be defined to be responsible for *C. longa* tea powder's anti-angiogenic activity.

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