

ABSTRACT

The growth and spread of cancer has been linked with the generation of blood vessels to feed itself through the process known as angiogenesis. Hot-water method was used to extract 20 g of Curcuma longa rhizome using distilled water as solvent in various dilutions: T₁= 300 ml (0.067 g/ml), T₂= 600ml (0.033 g/ml), T₃= 900 (0.022 g/ml) ml, and T₄=1200ml (0.017 g/ml), similar to the preparation of coffee or tea. 0.3 ml of extract was administered each to the 75 duck eggs on the 10th day of incubation and on the 17th day. Embryos were harvested and the chorioallantoic membrane (CAM) was removed. Secondary blood vessels were counted manually. Results showed that T₄ had the most number of blood vessel growth while T₁ had the least number of blood vessel formation. Using one-way ANOVA (p <0.05), a significant difference was observed between the treated groups and control group. Among the treatments, T₁ significantly reduced the formation of vasculature. Therefore, the present study suggests that Curcuma longa rhizome has an anti-angiogenic effect on the CAM of 10-day old duck embryo.