Effect of White Turmeric Rhizome (*Curcuma zedoaria*) Extract on the Angiogenesis in the Chorioallantoic Membrane of Embryonated Chicken Eggs

ABSTRACT

Angiogenesis is the most important stage in cancer development. In the presence of angiogenesis, cancer cells can develop and destroy specific tissues and can metastasize to other tissues. Inhibition of angiogenesis is the right solution for treating cancer. Curcumin which are concentrated in the extract of white turmeric (*Curcuma zedoaria*), widely known has antiangiogenic effect. The study was aim to investigate antiangiogenic effect of white turmeric by counting the number of new blood vessels based on haematoxylin-eosin staining. Eggs at the age of nine days were divided into 6 groups. Two groups are control: bFGF and vehicle. The next four groups are extract of white turmeric that variate in 4 dosage: 60, 75, 90 and 110 µg. At the age of twelve, the shell was opened and chorioallantoic membranes were collected for histopathological preparation. Based on haematoxylin-eosin staining, angiogenic blood vessel in the extract group was less than the control bFGF group. The results show that the extract of white turmeric could inhibit angiogenesis.

Key word: *Curcuma zedoaria*, angiogenesis, chorioallantoic membrane