UJI AKTIVITAS EKSTRAK DAUN *Gynura procumbens* SEBAGAI ANTIANGIOGENESIS PADA MEMBRAN KORIOALANTOIS TELUR AYAM BEREMBRIO YANG DIINDUKSI DENGAN *basic Fibroblast Growth Factor* (bFGF)

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ABSTRACT

One of the characteristic of cancer is the formation of new blood vessels or angiogenesis. Angiogenesis supplies oxygen and nutrition for cancer cells in order to fulfill their needs to keep growing. So, a blockade of angiogenesis is a promising strategy to suppress tumor growth, invasion, and metastasis. Flavonoid which are concentrated in the exract of *Gynura procumbens* leaves are widely known to have antiangiogenic effect. In this study, the antiangiogenic effect of ethanol extract from the *Gynura procumbens* leaves was determined. The chick CAM (Chorio Allantoic Membrane) methods was used for this aim. Eggs at the age of nine days were divided into 6 groups. Two groups are control: bFGF and vehicle (DMSO + tris-HCL). The next four groups are extract of *Gynura procumbens* leaves that variate in 4 dossage: 60, 75, 90 and 110 µg which are applied into paper disc. At the age of twelve, macroscopic and microscopic analysis was done. Macroscopicly, the extract group can inhibit the new blood vessels formation. This fact is supported by microscopic analysis. Based on haematoxylin-eosin staining, angiogenic blood vessel in the extract group was less than the control bFGF group. The results showed that the extract of *Gynura procumbens* leaves could inhibit angiogenesis in a dose-dependent manner. Doses 60, 75, 90 and 110 µg gave angiogenesis response of 242.50 ± 69.63; 144.00 ± 15.30; 92.75 ± 5.38 and 70.25 ± 13.07. These results indicate a potential antiangiogenic effect of the extract.

Key words: antiangiogenic, CAM, *Gynura procumbens*.