

ISSN 1979-1305

VETERINARIA *Medika*



Vet Med | Vol. 4 | No. 2 | Hal 87-156 | Surabaya, Juli 2011

**FAKULTAS KEDOKTERAN HEWAN
UNIVERSITAS AIRLANGGA**

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Activity Test of Gynura procumbens Leaves Extract as Antiangiogenic on Chick Embryo Chorioallantoic Membrane Induced by basic Fibroblast Growth Factor (bFGF)

Uji Aktivitas Ekstrak Daun Gynura procumbens Sebagai Antiangiogenesis pada Membran Korio Alantois Telur Ayam Berembrio yang Diinduksi basic Fibroblast Growth Factor (bFGF)

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Abstract

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 extract of *Gynura procumbens* leaves are widely known has anti angiogenic effect. 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. The next four groups are extract of *Gynura procumbens* leaves that variate in 4 dossage: 60, 75, 90 and 110 μ g. 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 μ g gave angiogenesis response of 242.50 ± 69.63 ; 144.00 ± 15.30 ; 92.75 ± 5.38 and 70.25 ± 13.07 .

Keyword : Antiangiogenic, , CAM, *Gynura*, , , ,

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