## IR – PERPUSTAKAAN UNIVERSITAS AIRLANGGA

## The Influence Of Metanol Extract Ketapang Leaves (*Terminalia catappa L.*) On Density Of Collagen Fibers In Healing Of Second Degree Burns In White Rats (*Rattus norvegicus*)

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## **ABSTRACT**

Burn is loss or damage to the integrity of the skin which caused by exposure to temperature or pH, chemicals, friction, trauma. The aims of this study was to determine the influence of metanol extract ketapang leaves (Terminalia catappa L.) to increase on density of collagen fibers in healing of second degree burns in white rats (Rattus norvegicus). A total of 20 male rats (Rattus norvegicus) were divided into five groups with four mice per group. K- (negative control) was given the injury and then were given ointment. K+ (positive control) was given the injury and then were given Bioplacenton®. P1 burns with 25% metanol extract ketapang leavesointment. P2 burns with 50% metanol extract ketapang leavesointment. P3 burns with 100% metanol extract ketapang leavesointment. Treatment was given every other day for fourteen days. The results of the average dataon density of collagen fibers showed K-83,57%, K+ 84,52%, P1 90,32%, P2 86,77% and P3 83,36%. P1 and P2 groups did not show significant differences, but were significantly different from K+, K- and P3 groups. From the results, it can be concluded that ketapang leaves metanol extractcan increas on density of collagen fibersin the second degree burns healing process.

**Keywords**: burns, collagen, collagen density, flavonoid