ABSTRACT

The Role of Drumstick Leaves (Moringa oleifera) Extract in Increasing Angiogenesis Post Tooth Extraction of Wistar Rats

Background: Tooth extraction always cause tissue damage and wound. The process of wound healing after tooth extraction becomes a major concern because of many complications and makes the patient feel discomfort and pain suffered. Angiogenesis is one of the indications of wound healing. The composition of the drumstick leaves such as saponin and flavonoid will increasing angiogenesis process. Objective: To prove the effect of 15% drumstick leaves extract in increasing angiogenesis post tooth extraction of wistar rats. Method: Wistar rats divided into 2 control groups and 2 treatment groups. CMC-Na was applied on control groups and 15% drumstick leaves extract gel applied on treatment groups. The observations were made on the third and fifth day after tooth extraction by counting the blood vessel lumen using histopathological samplings. Data were analyzed using Independent T-test. Result: drumstick leaves extract gel topically applied in wistar rats socket after tooth extraction, can increase blood vessel lumen. In statistical test (p<0.05), the significant difference between control groups and treatment groups can be obtained. Conclusion: the effect of drumstick leaves gel increase angiogenesis process in wound healing on the third day compared to the control groups.

Keywords: tooth extraction, angiogenesis, Moringa oleifera, drumstick leaves