

**PENGARUH EKSTRAK BIJI JINTAN HITAM TERHADAP  
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DARAH PASCA EKSTRAKSI GIGI TIKUS WISTAR**

***THE EFFECT OF BLACK CUMIN SEEDS EXTRACT  
TOWARDS THE NUMBER OF FIBROBLASTS,  
MACROPHAGES, AND BLOOD VESSELS POST TOOTH  
EXTRACTION ON WISTAR RATS***

**ABSTRACT**

**Background:** the success of wound healing after dental extractions are influenced by several factors, one of which is the adequate intake of nutrients. A number of nutritional deficiencies can impede the process of wound healing. Some of the plants have been studied scientifically for its activities towards the wound healing process, one of them is black cumin seeds (*nigella sativa*), but there has been no research done to see the influence of black cumin seed extract towards the number of fibroblasts, macrophages, and blood vessels on the process of wound healing after tooth extraction. **Objective:** this study was conducted to determine the influence of black cumin seed extract gel towards the number of fibroblasts, macrophages, cells and blood vessels on a wistar rats socket after tooth extraction. **Methods:** this research using a sample of 12 wistar rats that divided into two groups, the control group and treatment group. Left insisif mandible was extracted on all samples. After tooth extraction, the control group was given no treatment at all, while in treatment group given extract of *nigella sativa* 74,8 ml. The whole samples were sacrificed on day 5 after the extraction. The number of fibroblasts, macrophages, and blood vessels observed through examination of histopathology material. Data analysis methods used in this research are Kolmogorov-Smirnov test, Levene's test, and Independent T-test. **Results:** Based on the results of the Independent T-test, note that there was a significant difference between the number of fibroblasts and macrophages in the control and treatment groups ( $p < 0.05$ ), whereas for the amount of blood vessels there was no significant difference ( $p > 0.05$ ). **Conclusion:** Black cumin seeds extract was able to increase the number of fibroblasts and macrophages, and has no effect on the number of blood vessels in the process of healing after dental extractions on wistar rats.

**Keywords :** Black cumin seeds extract, tooth extraction, fibroblasts, macrophages, blood vessels.