THE EFFECT OF JUJUBE EXTRACT (Ziziphus jujuba Mill.) ON FIBROBLAST NUMBERS IN TOOTH EXTRACTION WOUND HEALING PROCESS

(EXPERIMENTAL LABORATORIES OF WISTAR RAT)

ABSTRACT

Background. Wound healing after tooth extraction is important which involves many factors. It has 4 phases: hemostasis, inflammation, proliferation, remodeling. One factor that plays an important role in it is fibroblast cells. Fibroblasts actively proliferate to produce new collagen fiber which will use to repair the structure and function of the injured tissues. The use of plant as medicine has been widely known, included Ziziphus jujuba that has effect on it. It contains flavonooid as antiinflammation and antioxidant, tritepenes and saponins as antimicrobial.

Purpose. This study aims knowing the effect of Ziziphus jujuba fruit extract on the increase of number of fibroblast cells in tooth extraction wound healing of Wistar rats. Method. This study used male Wistar rats which were divided into 4 groups: 2 control groups (3rd, 7th day of execution) and 2 treatment groups (3rd, 7th day of execution). Each group has had tooth extraction which containing six Wistar rats on each. Control group used CMC Na 0.5%. Treatment groups used Ziziphus jujuba fruit extract plus CMC Na 0.5%. This study used 400 mg/kg body weight dose peroral. Hystophatologecal preparat made from the mandible of Wistar rats and counting of fibroblast cells. The data were analyzed using independent t-test. Result. There is no significant difference between number of fibroblast cells in control groups and treatment groups on the 3rd day and 7th day. Conclusion. Ziziphus jujuba fruit extract is less influential in increasing the number of fibroblast cells in wound healing of tooth extraction on Wistar rats.

Keywords: Ziziphus jujuba Mill., tooth extraction wound healing, fibroblast cells.