

Macroscopic Evaluation of the Effect of Low-Level Laser and Plasma Jet on Wound Healing in Rats

Authors : Zahra Tabarsi, Mehdi Marjani, Alireza Najafpour, Alborz Mirzade

Abstract : The aim of this study was to evaluate and compare the macroscopic effect of low level laser and plasma jet for wound healing in rats. The study was performed on 40 old male white rats with an average weight of 250 g and an average age of the same age. After preparing the rats from Ibn Sina Research Institute, they were kept the same for one week under environmental conditions such as temperature, humidity and light, and nutrition such as the type of diet and the number of meals. Then, to start the research, rats were randomly divided into two groups (A): laser treatment of wounds, group (B): plasma wound treatment. All rats were inhibited 4 hours before each anesthesia under conditions of abstinence and up to 2 hours after drinking water. Rats were anesthetized by intraperitoneal injection of ketamine 10% and xylazine 2%. After scrubbing between two shoulders of each rat, a circular wound was created by sterile 5 mm biopsy puncture. Group A rats were treated with low level laser in three sessions and group B in three sessions with argon plasma. Based on the observed results, it seems that Low level laser radiation has more acceptable and appropriate effects than cold plasma on the healing of rat skin wounds.

Keywords : low-level laser, plasma jet, rat, wound healing

Conference Title : ICASVM 2022 : International Conference on Animal Science and Veterinary Medicine

Conference Location : Beijing, China

Conference Dates : October 06-07, 2022