



## **Original article**

### **Assessment of the laser`s efficacy in treatment of impaired healing wounds**

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#### **Abstract**

Successes occurred in treatment of failing or impaired skin grafts, hypertrophic scars ,atrophic skin , and atopic dermatitis using Low Level Laser Therapy, L.L.L.T. .

The aim of the current study is to assess the efficacy of L.L.L.T. on healing wounds failed to be healed by first intention for experimentally induced whole layers skin loss in rabbits.

Eight rabbits underwent the study , they were divided into two groups ,the procedure involved raising two discs of whole skin from the lateral surface of the thigh of both sides .The sites of the operation in the treated group were treated by diode laser daily until the wound was sealed. Diameters of the wounds were periodically measured every three days and histopathological assessment was performed on the seventh day of experimental wounds.

L.L.L.T. group of animals showed increasing in the process of healing than approximately 1.5 times when compared with the non - L.L.L.T. group. In tested group wound contraction was faster, vascularity was significantly better with abundant granulation tissue formation, greater formation of collagen fibers, greater mast cell number, epithelial creeping margin was faster and greater epithelial hyperplasia .

L.L.L.T. is arising as new tool to accelerate healing process, they showed significant advantages regarding wound therapy by accelerating healing of secondary intention in experimental animal.

**Key words:** Laser , impaired healing wounds

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