

ORIGINAL ARTICLE

**EFFECTS OF FORMULATED TOPICAL NIFEDIPINE
OINTMENT ON TGF- β AND ACCELERATION OF FACIAL
SKIN WOUND HEALING IN RABBITS**

Abstract:

The purpose of this study was to evaluate the impact of 1% and 2% topical nifedipine ointments on TGF- β and the acceleration of facial skin wound healing in rabbits. Nifedipine ointments of 1% and 2% were prepared. Fifty healthy male rabbits were involved and distributed into two groups according to the study period: group A (7 days) and group B (14 days). Each group was subdivided into five groups (5 rabbits/group): Group I (Normal): rabbits did not undergo a surgical procedure and did not receive treatment; group II (negative control): rabbits had surgical wounds without treatment; group III (positive control): rabbits had surgical wounds with white petroleum treatment; group IV(nifedipine 1%): rabbits had surgical wounds with nifedipine 1% ointment treatment; and group V(nifedipine 2%): rabbits had surgical wounds with nifedipine 2% ointment treatment. Following euthanasia, blood samples (5 ml) were collected from all animals for TGF- β analysis using an ELISA kit. The TGF- β level in NFD 1% group was significantly higher on the 7th and 14th day of the study associated with a higher rate of wound closure in comparison to other groups. Conclusions: Nifedipine 1% ointment has beneficial value for improving wound healing, while nifedipine NFD 2% has no such effect.