

Wound healing effect of topical Grape Seed extract (*Vitis Vinifera*) on Rat palatal mucosa

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Abstract:

Introduction:

Wound healing is a process of re-establishing of the tissues physical integrity in the inside and outside of the body's structures and including the complex relationships between cells and different factors. Interest in the use of natural antioxidants, especially with plant origin in wound healing has been increased in recent years. The aim of this study was evaluation of Wound healing effect of topical Grape Seed extract (*Vitis Vinifera*) on Rat palatal mucosa.

Methods:

In an experimental study that performed in the Drug Applied Research Center of Tabriz University of Medical Sciences, by examining the results of local restorative Phenytoin, wound healing effect of topical Grape Seed extract (*Vitis Vinifera*) on Rat palatal mucosa were evaluated.

Results:

In this study, 20 rats, which included 10 rats in the test group, 10 rats in the control group, were studied. The reepithelialization rate was similar in different days in the test and placebo.

The formation of granulation tissue was higher in the placebo. The presence of inflammatory cells involved in the healing process in the placebo group, from the second day to the fifth day had the upward trend and showed downward trend from sixth day.

While in the test sample from the second to fourth day, the amount of inflammatory cells showed an upward trend and from fifth day, the downward

trend was observed in these factors. The angiogenesis rate on different days was similar in both groups.

In Overall, the thickness of the coating restored showed an upward trend, although was varied in different days and did not follow a regular ascending or descending pattern

Post operative wound infection was found in all samples with moderate to severe intensity.

Conclusion:

The formation of granulation tissue, the presence of inflammatory cells and angiogenesis in the test sample than placebo group had slower process. And at the end of eleven days, the result was almost the same.

Because the sample testing, on the ninth day, the epithelial tissue was fully healed, Granulation tissue modeling and deposition of collagen fiber organization more in the sample tested was greater than placebo, overall it can be concluded that in this study, *Vitis vinifera* more effective than placebo in the treatment of wound healing is completely rats.

Key Words:

Wound healing, Grape Seed extract(*Vitis Vinifera*), rats, histology