

**Evaluating the Effect of Topical Flavonoid Luteolin on Skin Wound
Healing in Rabbits**

CrossMark

Abstract

BACKGROUND: The aim of this study was to evaluate effect of luteolin nanoparticles cream on wound healing in rabbit skin. **Martial and Methods:** Thirty male rabbits were used in this study. Wound in skin was induced in all rabbits and divided into 5 groups. Group 1: no wound carried out (negative control), Group2: (positive control) dressing wounds by cream only while Groups 3,4,5: dressing wounds by luteolin nanoparticles cream (1%, 2%, 4%), respectively. Treatment was repeated every day. The wound size, tissue type observation assessment were measured at 1st, 3th, 7th days of the experimental procedure. **Results:** At 3th day no significant difference between negative and positive control groups was observed but there are significantly difference between all treated groups of luteolin nanoparticles cream at (1%, 2%, 4%) in comparison to positive control and negative control groups . At day 7 there were significant difference in wounds size between groups treated with luteolin nanoparticles in different concentrations (9.3 ± 1.3 , 7.3 ± 0.6 and 4.0 ± 1.1), respectively and between negative control groups whereas no significant difference within groups treated with luteolin nanoparticles cream in 1%, 2% and 4% (9.3 ± 1.3 , 7.3 ± 0.6 and 4.0 ± 1.1 mm), respectively. Clinical finding of the tissue type that present in the wound showed that epithelization in all groups treated with luteolin nanoparticles in different concentrations in comparison to negative and positive control.

Conclusions: Topical application luteolin nanoparticles cream in different concentrations accelerate skin wounds healing in rabbits.