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Effect of silver nanoparticles and hydro alcoholic extract of *Cucurbita pepo* on burn injury

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Silver nanoparticles cause stress oxidative by free radicals production. Antioxidant agents could result in harmful of free radicals. The use of nanoparticles and natural compounds as a biologic cure is effective and increase healing. This study was performed to investigation of the silver nanoparticles effects on skin burn repair in male mice. We used different concentrations of silver nanoparticles and ethanol extracts of *Cucurbita pepo* in the burned area into nine groups (8 males/group) of control, positive control and other treatment groups. Wound healing was measured during treatment (28 day) and data analyzed by ANOVA test. At the end of treatment, samples with hematoxylin-eosin were stained. The group that received the combination of silver nanoparticle and pumpkin extract on the seventh day showed a significant increase in wound healing, but the pumpkin extract 50% in the entire course of treatment showed significantly less improvement but indicated the best quality of skin tissue. But in 2 groups of different dose of silver nanoparticles we observe epidermal cysts. These results proved that, the amount of antioxidants found in different doses of a plant are not the same so we suggest a new combination of silver nanoparticles and *Cucurbita pepo* as a new drug. This project is not over yet and our research is continuing in a large format.

Biography

Samaneh Khodadadi is an physiologist that has completed her Msc at the age of 25 years from Falavarjan University. She was chosen as the best presenter of the National Congress of Biological Sciences, Damghan, Semnan, Iran and received Young Researcher Award in Third National Congress of Trace Elements, Kashan Medical University, Isfahan, Iran. She has published three papers in scientific journals and has eleven oral and poster presentation in international and national congress.

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