**Abstract:**

Introduction: Wound healing is an important physiological event after birth and proper healing of wounds is essential for restoration of skin integrity and function. The present study was carried out to investigate the effect of Elaeagnus Angustifolia fruit extract on experimental wounds and lipid peroxidation levels in rats.

Methods: After creating full-thickness skin wounds on the back of 45 male Sprague-Dawley rats, they were randomly divided into three groups including treated group which received the extract, positive control group treated with mupirocin ointment 2% and control group which did not receive any treatment. Wound healing rates were calculated on days 3, 5, 8, 10, 12 and 15 post-wounding and the wound tissues were harvested at 5, 10 and 15 days for biochemical and histological analysis. Malondialdehyde (MDA) level, as a marker of lipid peroxidation, was measured in the wound tissue of rats.

Results: The percentage of wound contraction was significantly higher at 10, 12 and 15 days in treated group compared to control but at 12 and 15 days than positive control. Histological scores were significantly higher at 10 and 15 days in treated and positive control than control.

Conclusion: A significant decrease was also observed in MDA content of the skin of treated group in comparison to control and positive control groups. These data provide evidence that Elaeagnus Angustifolia extract has antioxidant properties through possessing the active compounds such as flavonoids (polyphenols), terpens and sitosterols, which may be responsible for faster wound healing. Therefore this extract can be used as a therapeutic agent for wound healing.

Wound Healing, Antioxidant, Elaeagnus Angustifolia, Histology, Rat

Presentation: Poster