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Abstract

This study aimed to investigate the effect of flavonoid luteolin on primary wound healing in rats. thirty healthy white male albino rats almost the same age, weight, and circumstance were chosen were used in this study. All animals were submitted to operation in the buccal mucosal region. Each animal was given a mixture of xylazine 8mg/kg (sedative, analgesic, and muscle relaxant) and 100mg/kg Ketamine hydrochloride (anesthetic agent) intraperitoneally. After about 5 minutes anesthetic integrity was checked by testing rats' reflexes. After complete anesthesia each animal was laid down on the dorsal side on the surgical board, via intraoral approach a full-thickness soft tissue incision (0.5cm length) in the right buccal mucosa then the incision was closed by a single simple interrupted stitch using 5/0 black silk suture to heal by primary intention, then the animals were randomly divided into two main groups (each group 15 rats): control group and luteolin group which receives luteolin (50 mg/kg/day) solution orally, then each main group subdivided into three subgroups (each group 5 rats) according to the time of sacrifice 3rd, 7th and 9th days after surgery respectively. Biopsies took from the site of operation and examined by three histopathologists. Statistical significance was accepted for ($p\text{-value} \leq 0.05$), The statistical analysis showed significant differences in inflammatory response between the luteolin-treated group and control group at all periods of healing. And there were significant differences in granulation tissue between