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عنوان مقاله:

Gastroprotective Effect of Capparis spinosa on Indomethacin-induced Gastric Ulcer in Rats

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خلاصه مقاله:

Peptic ulcer is an acid-induced lesion that is usually found in the stomach and duodenum. It is usually a case of imbalance between the acid (and other injurious factors) and the mucosal defense mechanisms. Indomethacin is one of the most ulcerogenic drugs that is prescribed over-the-counter for the management of musculoskeletal problems. Capparis spinosa is one of the most important species in the Capparidaceae family, which has a wide range of diversity. Caper (Capparis spinosa L.) is a common member of the genus Capparis (Capparidaceae family). The present study was designed to compare the effect of C. spinosa extract as a gastroprotective agent with indomethacin as an induction agent and ranitidine as a standard drug. To this aim, ۴۰ adult male Wistar rats were randomly divided into ۴ groups (n=۱۰ each), including Control +: indomethacin-treated group, Control -: receiving physiological saline solution, C.S: C. spinosa-treated group; and ranitidine-treated group (۵۰ mg/kg) as a standard agent for the treatment of the gastric ulcer. After the experimental period, all the animals were sacrificed by anesthesia overdose and their stomachs were removed. The gastroprotective effect of C. spinosa was investigated by studying prostaglandin E۲ (PGE۲), Gastrin, anti-tumor necrosis factor alpha (TNF-α), and Interleukin ۱ beta (IL۱-β), along with histopathological examination. The results showed a significant increase in PGE۲ levels in the ranitidine-treated group with a significant reduction in Gastrin, TNF-α, and IL۱-β. The recorded data obtained from the histopathological study showed a significant improvement in the treated group with the extract of C. spinosa. The study concluded that C. spinosa had gastroprotective properties possibly through enhancing PGE۲ which was acting as anti-inflammatory inhibiting neutrophil infiltration.

کلمات کلیدی:

Anti-inflammatory, Capparis spinosa, gastroprotective, indomethacin

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