

Antiulcer Potentiality of Curcumin and its Derivative in Indomethacin-Induced Rat Model

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SUMMARY. In this work, the antiulcer activity of curcumin and its derivatives was assessed using an indomethacin-induced ulcer model. Curcumin has a wide range of pharmacological potential, however its poor pharmacokinetic profile limits its medicinal usefulness. To improve curcumin's biological potential, 1,7-bis(4-ethyloxy-1-3-methoxy-phenyl)-hepta-1,6-diene-3,5-dione was semi-synthesized from curcumin. Indomethacin (30 mg/kg) was used to create ulcers in the animals. In this investigation, the animals had been divided into five groups, each with six animals. For 21 days, the experiment was carried out. Total acidity and free acidity pH and ulcer index (UI). To confirm the potential of curcumin and curcumin derivatives, a were determined to assess the antiulcer potentiality of the medication histopathology investigation was performed. Curcumin and curcumin derivatives, both have significant antiulcer potential. The histopathology study also indicates the semi synthetic drug has better antiulcer potential. In lots of research required for improve the biological potentiality of the magic drug curcumin.

RESUMEN. En este trabajo, se evaluó la actividad antiulcerosa de la curcumina y sus derivados utilizando un modelo de úlcera inducida por indometacina. La curcumina tiene un amplio rango de potencial farmacológico, sin embargo, su pobre perfil farmacocinético limita su utilidad medicinal. Para mejorar el potencial biológico de la curcumina, se semisintetizó 1,7-bis(4-etiloxi-1-3-metoxi-fenil)-hepta-1,6-dieno-3,5-diona a partir de curcumina. Se utilizó indometacina (30 mg/kg) para crear úlceras en los animales. En esta investigación, los animales se dividieron en cinco grupos, cada uno con seis animales. Durante 21 días, se llevó a cabo el experimento. Acidez total y acidez libre, pH e índice de úlcera (UI). Para confirmar el potencial de la curcumina y los derivados de la curcumina, se determinó un para evaluar el potencial antiulceroso del medicamento. Se realizó una investigación histopatológica. La curcumina y los derivados de la curcumina tienen un potencial antiulceroso significativo. El estudio histopatológico también indica que el fármaco semisintético tiene un mayor potencial antiulceroso. Se necesitan muchas investigaciones para mejorar el potencial biológico del fármaco mágico curcumina.

KEY WORDS: ADMET property, characterization, curcumin, curcumin derivative.

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