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Prodrug Design of NSAIDs: Synthesis and Pharmacological Profiles of Amide Prodrugs of Etodolac with Amino Acids

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SUMMARY. **Novel amide prodrugs of etodolac with various amino acids were synthesized and the structures were confirmed by elemental and spectral analyses. *In vitro* hydrolytic studies in various simulated fluids confirmed the hydrolysis of prodrugs in colon. The prodrugs showed an improved anti-inflammatory activity of 74.4 %, 79.3 %, 73.4 % and 74.5 % when compared to 42.5 % of etodolac. Further the mean ulcer index of 10.1, 8.7, 6.8 and 7.3 were observed for the prodrugs while a score of 22.6 for etodolac. The histopathological studies showed less ulceration in the gastric region when treated with prodrugs, thereby proving the prodrugs to be better in action as compared to etodolac and are advantageous in having less gastrointestinal side effects.**

KEY WORDS: Amide prodrugs, Etodolac, Histopathology, Ulcerogenicity.

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