ROLE OF ADRENAL GLAND HORMONES IN THE MECHANISM OF ANTIULCER ACTION OF NIMESULIDE AND RANITIDINE

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In the present study, we investigated whether the antiulcer effects of nimesulide (100 mg kg⁻¹) and ranitidine (150 mg kg⁻¹) were dependent on the adrenal cortex hormones. The antiulcer effects of nimesulide and ranitidine were examined in the indomethacin-induced gastric ulcer model in rats (first experiment). The mean ulcer areas in the control and ranitidine-treated groups were 11.1 ± 3.18, 1.4 ± 1.11 mm², respectively. There was not any gastric damage in nimesulide-treated group. The mean ulcer area of control group (second experiment) administered metyrapone and indomethacin was 11.8 ± 9.9, and it measured 2.0 ± 1.41 mm² in ranitidine-given group, while gastric damage was not observed in nimesulide-administered group. In adrenalectomized and indomethacin-treated rats (third experiment), the mean ulcer area was 17.9 ± 11.5 mm² in the nimesulide group, gastric ulcer was not seen in ranitidine group. In adrenalectomized rats (fourth experiment), the mean ulcer areas were 29 ± 14.3, 23 ± 11.2 and 1.3 ± 2.4 mm² in control group given indomethacin, only nimesulide or indomethacin + ranitidine, respectively. The obtained results indicated that adrenal cortex hormones played a role in antiulcer effect of nimesulide, but not ranitidine.

Key words: nimesulide, ranitidine, metyrapone, adrenalectomy, gastric ulcer, rat

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