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Twenty-seven healthy males aged 26-51 years volunteered for study. Each drug was administered after an overnight fast to 9 subjects as follows: hydrocortisone 100 mg or lysine-acetylsalicylate 2 g (1.8 acetylsalicylic acid) by rapid intravenous injection; phenylbutazone 600 mg intramuscularly. The serum gastrin concentration was evaluated by the radioimmunoassay method before and 15, 30, 45, 60, and 90 minutes after treatment. The Table shows that the mean serum basal gastrin levels were not significantly modified by any drug.

Present data confirmed that acute hydrocortisone administration does not affect gastrin secretion and, together with the study by Rooney *et al.* (1976), show that acetylsalicylic acid and phenylbutazone fail to increase serum gastrin after acute as well as chronic treatment.

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Effect of anti-inflammatory agents on serum gastrin concentrations

Sir,

We were interested in the paper by Rooney *et al.* (1976) showing that the raised serum immunoreactive gastrin concentration, which is frequently found in patients with rheumatoid arthritis, is not modified by 14 days' administration of anti-inflammatory drugs (aspirin, indomethacin, phenylbutazone, tetracosactrin, or ascorbic acid). Other workers have reported increased basal and/or meal-stimulated serum gastrin levels after chronic corticosteroids or corticotrophin treatment, both in the dog (Watson *et al.*, 1973) and in man (Raptis *et al.*, 1976), while the basal serum gastrin concentration was not modified after acute parenteral administration of hydrocortisone (Watson *et al.*, 1973; Giordano and Marugo, 1974) or prednisolone (Raptis *et al.*, 1976). No data are available on the effects of acute administration of non-steroidal anti-inflammatory drugs on serum gastrin levels. Therefore, we have evaluated the serum gastrin concentration after acute parenteral administration of phenylbutazone, lysine-acetylsalicylate, and hydrocortisone.

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Table Effect of acute administration of anti-inflammatory agents on serum gastrin concentration in normal subjects (mean \pm SEM)

Treatment	No. of subjects	Time (min)						
		-15	0	15	30	45	60	90
Phenylbutazone	9	72 \pm 7	71 \pm 8	73 \pm 8	76 \pm 9	77 \pm 6	70 \pm 9	73 \pm 9
Lysine-acetylsalicylate	9	80 \pm 5	78 \pm 7	80 \pm 8	82 \pm 7	80 \pm 9	83 \pm 10	79 \pm 8
Hydrocortisone	9	75 \pm 7	73 \pm 7	75 \pm 6	79 \pm 10	76 \pm 9	78 \pm 7	78 \pm 9