

in the stomach but not in the duodenum is interpreted as evidence that the mechanism whereby histamine causes gastric ulceration is different from that whereby histamine causes duodenal ulceration.

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October 20, 1966

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A comparison of fluphenazine and chlorpromazine on critical flicker fusion frequency

SIR,—Besser, Duncan & Quilliam (1966) showed that chlorpromazine 25 and 50 mg depressed the auditory flutter fusion threshold at 90 and 180 min after administration, but neither 2 nor 4 mg of perphenazine altered it. It is also true that piperazine phenothiazine derivatives have less sedative effects than aliphatic derivatives.

Visual critical flicker frequency is a similar test of central nervous function. In a double-blind experiment, identical tablets of fluphenazine 1 mg, chlorpromazine 25 mg and a placebo were administered in random order to 6 young subjects, of either sex, in a Latin square design and with an interval between administrations of not less than 3 days. The critical flicker frequency was measured at 0, 2, 4 and 7 hr (Turner 1965, Smart & Turner, 1966) which involved exposing the subjects to intermittent light at 25 and 50 c/sec, for 1 min before measuring the critical flicker frequency.

Chlorpromazine produced a fall in the mean critical flicker frequency threshold between 0 and 4 hr compared with the placebo ($P < 0.02$) but the change in threshold after fluphenazine was not significantly different from that after the placebo. Between 4 and 7 hr the threshold after chlorpromazine rose towards the resting level but was still depressed ($P < 0.05$). The difference between the effects of chlorpromazine and the other two treatments was significant ($P < 0.01$). None of the treatments influenced the adapting effect of light at 20 and 50 c/sec on the parameter, which is a stable phenomenon (Turner, Patterson & Smart, 1966).

It appears, therefore, that in this sensitive test of visual discrimination, the aliphatic phenothiazine derivative chlorpromazine has a significant depressant action compared with the piperazine derivative fluphenazine.

Acknowledgements. This work was carried out during the tenure of a Wellcome Senior Research Fellowship in Clinical Science. I am grateful to Mr. J. V. Smart for statistical help.

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September 26, 1966

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