

then the relation of potency of THC and DMHP would not differ much from unity. This is interesting because, according to Adams, Harfenist & Loewe (1949), by the approximation method on dogs, DMHP would have 70 times the potency of natural THC. Comparative assays with DMHP and THC in our experimental conditions are needed to check this.

In conclusion, abolition of the dog linguomandibular reflex as well as that of the rabbit corneo-palpebral reflex after cannabis, THC or pyrahexyl seem to indicate a marked depressant action of these agents upon the trigeminal nuclei or related structures, or both, through an unknown mechanism.

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### The influence of 5-hydroxytryptamine on the actions of adrenaline

SIR,—Intravenous injection of adrenaline produces acute pulmonary oedema in several species of laboratory animals (Visscher, Haddy and Stephens, 1956). It has recently been shown that the simultaneous injection of 5-hydroxytryptamine (5-HT) and adrenaline in the rabbit and in the mouse reduces the intensity of the pulmonary oedema and significantly lowers the mortality rate (Uppal, Sen & Sanyal, 1967). We have now examined the effect of the simultaneous administration of 5-HT and adrenaline on the blood pressure of the rabbit and the dog, on the frog perfused heart, on the rabbit isolated ileum and on the blood sugar level of the rabbit.

The actions of adrenaline and 5-HT were additive except on the blood sugar level of the rabbit. Here the injections of adrenaline (1 mg per animal) caused a rise in the blood sugar level of 88-270 mg/100 ml, over fasting levels. Similar injections of 5-HT caused a rise of 5-25 mg/100 ml, only. When both the substances were administered together, the rise in the blood sugar level was 8-30 mg/100 ml.

The mechanism of the blockade by 5-HT of the hyperglycaemia induced by adrenaline is obscure. It has been suggested that a specific blocking action may be involved in interactions of 5-HT and catecholamines (Gyermek, 1961).

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