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## COMMUNICATIONS

In communications with more than one author, an asterisk (\*) denotes the one who presented the work.

### **The effect of mescaline on defaecation in seven inbred strains of laboratory mice**

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Male laboratory mice (*Mus musculus*) from seven different inbred strains have been surveyed to see how they differ in their reaction to an intraperitoneal dose of 35 mg/kg mescaline sulphate in normal saline. Mice were placed individually in an 18 cm x 18 cm enclosure for 3 min and the numbers of faecal boluses produced during that time were recorded. This procedure was carried out immediately before mescaline injection, 1 h after injection and 2 h after injection, and the numbers of boluses produced after injection were compared with the numbers produced by the same mice in a similar experiment when injected with normal saline in place of mescaline.

The following seven strains were used: A2G, C3H/He, C57BR/cd, F, CBA/Cam, ICFW and

Schneider. Of these, only the Schneider strain is not fully inbred. In the saline control experiments A2G mice defaecated most and Schneider defaecated least. The effect of mescaline was to inhibit defaecation in all strains except Schneider. The more a strain defaecated in the saline control experiment, the more it was inhibited by mescaline. Thus, six A2G mice produced a total of 50 boluses in the control experiment but only five after mescaline injection, whereas 12 Schneider mice produced seven boluses in the control experiment and seven after mescaline injection. All the other five strains gave intermediate values.

Pre-treatment of A2G and C3H/He mice with the monoamine oxidase inhibitor tranylcypamine (20 mg/kg i.p.) or the diamine oxidase inhibitor aminoguanidine (20 mg/kg i.p.) had no significant effect on defaecation or on its inhibition by mescaline.

These data illustrate the wide difference between the reactions of different strains of mice to one drug, mescaline. There is no reason to expect less variation in their reactions to other drugs.