

observed in the second group of animals. This is surprising, as the drug in the second group comes into direct contact with the nervous tissue and previous experiments have shown that the effect of a drug (e.g. *p*-chlorophenylalanine) on the 5-HT metabolism is normally greater with this method. In any event, the present experiments demonstrate clearly that tryptophan metabolism in the snails, as in vertebrates (Baumgarten, Victor & Lovenberg, 1973), is affected by 5,7-dihydroxytryptamine.

Preliminary investigations were made into the effect of 5,7-dihydroxytryptamine on the accumulation of 5-HT into nervous tissue. Compared with a number of other indole analogues tried, 5,7-dihydroxytryptamine, N-acetyl-serotonin and 5-HTP were the most potent in the inhibition of the accumulation of [¹⁴C]-5-HT. It is of interest to note that Horn, Baumgarten and Schlossberger (1973) discovered 5,7-dihydroxytryptamine to be a powerful inhibitor of 5-HT uptake in the rat CNS.

The present results show that 5,7-dihydroxytryptamine affects the accumulation and metabolism of 5-HT in snail nervous tissue, though not as drastically as in the rat (Baumgarten, Björklund, Lachenmayer & Nobin, 1973).

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Analysis of examination performance in pharmacology

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Computer-marked multiple-choice question (MCQ) type examinations can provide much information for cumulative studies (Brown, Towart & Wilson, 1974).

This demonstration shows correlations between G.C.E. results obtained before University, and MCQ and essay results obtained over five pharmacology examinations by a single class (*n* = 92) during their first and second years. O levels, A levels and Irish leaving certificate results for each student were awarded points on an arbitrary basis depending on standard of examination and grade achieved. The points were apportioned to subject groups: 'Science', 'Arts', 'English', 'Mathematics', or 'Classics' as appropriate.

Students' MCQ and essay marks were grouped as either above or below average, and *t* tests used

to determine whether the mean entrance qualification scores of each group differed significantly. Above average MCQ marks were associated with higher 'Science', 'Maths' and 'English' scores (*P* < 0.05). There was no relationship between students' entrance qualification scores in 'Arts' or 'Classics', and their MCQ performance. Above average essay marks were associated only with higher 'English' and 'Arts' scores; there was no relationship with 'Science' scores.

These results show that the student with good GCE Science, Maths and English results has an advantage in answering MCQs. However, the Arts trained student may have an advantage in essay writing, which may not necessarily be related to his knowledge of the science of pharmacology.

It is therefore suggested that marking criteria in essays require further investigation.

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