

CARTAS AL EDITOR

Excretion of histamine in germ free rats after histamine administration

The tissular distribution and urinary excretion of histamine appears to be the same in germ free and not germ free rats (5). Furthermore no differences were observed in the number or morphology of the mast cells in the mesentery and peritoneal fluid (4) and in the histamine content of the intestinal tract (1) between germ free and conventional animals. Nevertheless, as formerly pointed out by GUSTAFSSON *et al.* (5), there may be some differences in the ability to acetylate histamine. In the present Note we deal with this aspect of the question.

Four germ free adult male rats reared as described by GUSTAFSSON (3) and two not germ free rats of the same strain,

were fed autoclaved diet D7 (see GUSTAFSSON, 1959) and water ad lib., in metabolism cages, and faeces and urine were collected in 24 hours samples. Estimation of histamine in the diet D7, by the CODE's method (2), gave 5.4 $\mu\text{g/g}$ expressed in terms of the base. Extracts from urine and faeces were prepared according to CODE (2) and ROBERTS and ADAM (6) for free and conjugated histamine respectively, and assayed on guinea-pig's ileum against a standard solution of histamine. One mg histamine dichlorhydrate was given by stomach tube to every rat, and 24 hours samples similarly collected and analyzed. The results are given in Table I.

Figures on the first column agree well

TABLE I

Free and conjugated histamine in urine and faeces from germ free reared and conventional male rats, before and after administration of 1 mg. histamine dichlorhydrate. The figures represent μg histamine base excreted per 24 hours.

		Urine		Faeces	
		before	after	before	after
Germfree rats	Free histamine	5.9	5.3	0.48	11.5
	Conjugated histamine	8.0	13.6	0	0
Not germfree rats	Free histamine	2.1	8.5	< 0.03	20.3
	Conjugated histamine	5.4	18.4	0	0

with those found by GUSTAFSSON *et al.* in rats fed a histamine free diet (5). With another strain of rats, however, we have found higher values for the conjugated histamine excreted under the same D7 diet.

It is worth to remark that urinary excretion of free histamine in the germ free rats does not change after oral histamine administration, and the increase of conjugated histamine is less in germ free than in conventional animals. In no condition conjugated histamine was found in faeces, but a significant increment of free histamine in faeces was observed after the histamine administration, in both groups of animals.

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