

**Recovery of prostaglandin-like fatty acids from human allergic contact eczema using a skin perfusion method**

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A method of continuous *in vivo* cutaneous perfusion using warm Tyrode solution has been developed which permits direct analysis of pharmacological agents released in inflamed human skin (Greaves & Søndergaard, 1970). Eczematous skin of sensitized patients was perfused for periods varying from 60–90 min and successive 15 min aliquots of perfusate were subjected to assay. The rate of infusion was 2 ml/min, and 40–70% of the infused Tyrode solution was recovered in the perfusate. Histamine and kinin activity were determined by bioassay and 5-hydroxytryptamine by spectrofluorometry. Using this method smooth muscle-contracting activity (SMCA), previously unrecognized in allergic eczema has been recovered (Søndergaard & Greaves, 1970). This activity, present in twenty-one of thirty patients studied, was not due to histamine, kinins, 5-hydroxytryptamine or acetylcholine. Its pharmacological properties and its solubility in ethyl acetate at pH 3 suggested that it contains fatty acid activity of the prostaglandin type. Thin-layer chromatography of the ethyl acetate extracted perfusate indicates that SMCA contains a mixture of prostaglandins.

Histamine was found in seven patients. Kinin activity was recovered in twelve of the thirty subjects but these results did not differ significantly from those obtained in the normal skin of eighteen control subjects. No 5-hydroxytryptamine, histamine or SMCA was found in the control group.

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**REFERENCES**

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**Preliminary study on the effects of fenfluramine derivative, 'S992' in man**

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In rats, the fenfluramine derivative, S992 (*m*-trifluoromethyl-phenyl)-1-[ $\beta$ -(benzyloxy) ethyl] amino-2-propane), exerts an anorectic effect, produces a loss of body weight and causes an elevation in free glycerol and free fatty acids (FFA) in the blood plasma (Duhault & Malen, 1970). A preliminary study was made on the effects of orally administered 'S992' in adult human volunteers eating normal diets, *ad libitum*.

Thirty subjects (88–157% of ideal body weight) completed the trial which was as follows; week 1, control; week 2, 150 mg/day; week 3, 300 mg/day; week 4, 450 mg/day; week 5, 600 mg/day; and week 6, a final control week. On the first and last days of each week, the subjects were weighed in the morning on waking, before breakfast and immediately after bladder emptying. Blood samples were obtained, with the subjects at rest, for analysis of plasma FFA, free glycerol, triglycerides, ketones, cholesterol, and glucose, by methods previously described (Pawan, 1969).