

The influence of xanthinol niacinate on ADP and adrenaline-induced platelet aggregation

SIR,—Xanthinol niacinate (7-[2-hydroxy-3-(*N*-2-hydroxyethyl-*N*-methylamino)-propyl]-1,3-dimethylxanthine-pyridin-3-carboxylate) has been reported by Balkuv, Akman & Ulutin (1966) to inhibit ADP induced platelet aggregation.

We have measured *in vitro* the inhibitory effect of this drug on platelet aggregation induced both by ADP and adrenaline using platelet rich plasma prepared according to Born & Cross (1964) and our own modification of O'Brien's (1964) method for the study of platelet aggregation, mentioned elsewhere by Ryšánek, Švehla & others (1967). Xanthinol niacinate was taken in quantities of 15, 10, 5, and 1 mg/2 ml of incubation mixture, i.e., in 750, 500, 250 and 50 mg % concentrations. Concentrations lower than 50 mg % were not examined since this was the lowest strength to give statistically significant results.

Table 1 shows that xanthinol niacinate significantly inhibited ADP induced platelet aggregation even in a concentration of 50 mg %.

TABLE 1. INHIBITION OF ADP-INDUCED PLATELET AGGREGATION BY XANTHINOL NIACINATE (Xn)

Xn conc.	n	Inhib. %	s.d.	t	P
750 mg % ..	8	97.5	3	88	<0.001
500 mg % ..	8	91.1	13	18	<0.001
250 mg % ..	9	45.7	30	4.3	<0.01
50 mg % ..	11	11.2	14	2.5	<0.05

Table 2 shows the inhibition of adrenaline induced platelet aggregation by xanthinol niacinate. The inhibitory effect was less marked here. This was due to a wider variation in standard deviation, though the resulting mean inhibition values did not differ significantly from those with ADP induced aggregation.

TABLE 2. INHIBITION OF ADRENALINE-INDUCED PLATELET AGGREGATION BY XANTHINOL NIACINATE (Xn)

Xn conc.	n	Inhib. %	s.d.	t	P
750 mg % ..	9	90	12.5	20	<0.001
500 mg % ..	8	84	21.5	10	<0.001
250 mg % ..	9	62	25	7	<0.01
50 mg % ..	9	13	22	1.6	>0.05

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