

## EFFECT OF ISOPRENALINE ON ETHER-INDUCED ARRHYTHMIAS

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Sir,

Ether inhalation is known to produce cardiac arrhythmias of short duration (2,3).

In our previous study (1) it was observed that ether administration in some of the experimental rats resulted in arrhythmias with varying degrees of Atrio-ventricular (AV) block and Wenckebach periods (Fig. 1A). On the other hand, when these susceptible animals were treated with high dose of Isoproterenol (IPT) (100 mg/kg sc/day), their Electrocardiographic (ECG) records showed none of these arrhythmias (Fig. 1B).

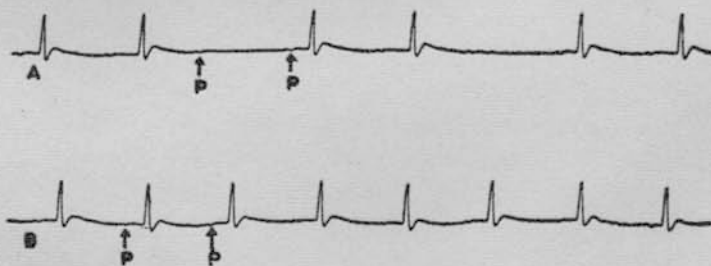


Fig. 1: E.C.G. recordings of the rat. (Lead II)

- A. Cardiac arrhythmias (A-V Block) during ether administration.
- B. 24 hours after Isoproterenol administration in the same rat. Absence of arrhythmias.

These observations indicate that ether induced arrhythmias are abolished after high doses of IPT. Mechanism of this effect of IPT is not clear. Beta ( $\beta$ ) stimulant action of IPT may restore the sinus rhythm by blocking the Hering-Kratschmer reflex pathway which is possibly responsible to produce such arrhythmias during ether inhalation (4). Cardiac depressant activity of ether which may contribute to the production of arrhythmias, may also be counteracted by IPT.

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