

LETTER TO THE EDITOR

PARACETAMOL AUGMENTS THE SOTALOL INDUCED BRADYCARDIA IN MAN

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Sir,

Sotalol is a B₁ and B₂ adrenoceptor blocker with no intrinsic sympathomimetic or membrane stabilizing activity (2). It has been reported to lower arterial hypertension (2) for 24 hr despite the fact that its plasma half life is 15–17 hr following single oral dose. Paracetamol is an effective analgesic antipyretic drug which is in wide use (3). However, in toxic doses, paracetamol causes severe cardiac depression due to myocardial damage (4) and lately it has been reported that paracetamol causes bradycardia in healthy adults (1). In view of the possibility that an incipient cardiac depression due to paracetamol occurs though it is not always clinically evident, the present work was carried out to examine whether it adds to the effects of sotalol.

Nine male patients (between 35 to 45 years of age) of essential hypertension with supine arterial diastolic pressure ranging between 96–104 mm of Hg and the resting rate between 76–80/min were given sotalol (240 mg) as a single oral dose daily in afternoon (3.00 P.M.) for two weeks. Five of these, 9 patients were given paracetamol, 2000 mg/daily in 3 divided doses on day 8, 9 and 10 since they had complaints of headache and bodyache. Sotalol administration was not discontinued.

Blood pressure and pulse rates were measured in the mornings in supine position, after the patients rested for 5 min and before patients took tea and breakfast every day.

It is evident (Table I) that hypotensive effect of sotalol was significant by 10th day and was associated with significant ($P < 0.05$) bradycardia, the reduction in mean heart rate being 10 beats per min. Bradycardia was even greater ($P < 0.01$) in the patients who received paracetamol in addition to sotalol, the diminution in mean heart rate being 18 beats per min. Paracetamol thus augmented the sotalol induced bradycardia. This effect needs to be further explored in larger number of cases, and its clinical relevance needs to be assessed.

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TABLE 1 : Pulse rate and blood pressure of patients treated with Sotalol alone and with a combination of Sotalol and Paracetamol.

| Patients | Supine pulse rate/min | | Significance of pulse difference between groups | Supine blood pressure (mm Hg), Mean \pm S.E.M. | |
|---|-----------------------|--------------|---|--|-----------------|
| | Mean | \pm S.E.M. | | Systolic | Diastolic |
| (A) Patients 1 to 9 before starting sotalol. | 78 | \pm 2.22 | | 152 \pm 2.82 | 104 \pm 2.25 |
| (B) Patients 1 to 9 after 7 days of sotalol (240 mg/day) | 70 | \pm 2.68 | A/B t=2.2988 P < 0.05 | 142 \pm 2.36 | 92.0 \pm 2.66 |
| (C) Patients 1 to 4 after 10 days of sotalol (240 mg/day) | 68 | \pm 2.68 | A/C t=2.6281 P < 0.05 | 140 \pm 2.36 | 90.0 \pm 2.65 |
| (D) Patients 5 to 9 after 10 days of sotalol (240 mg/day) and Paracetamol 2000 mg daily for 3 days (day 8, 9, 10) | 60 | \pm 1.33 | C/D t=2.8617 P < 0.01 | 138 \pm 2.23 | 88.0 \pm 1.18 |

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