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Title (type in CAPITAL LETTERS)	EFFECTS OF METHOXAMINE ON MAXIMUM URETHRAL PRESSURE IN WOMEN WITH GENUINE STRESS INCONTINENCE : A PLACEBO CONTROLLED, DOUBLE BLIND CROSSOVER STUDY.

Aims of Study

To evaluate the potential role for a selective α_1 -adrenoceptor agonist in the treatment of stress urinary incontinence, we conducted a clinical pharmacological study utilising methoxamine in women with genuine stress incontinence (GSI).

Methods

In a randomised, placebo controlled, double blind crossover study, half log incremental doses of intravenous methoxamine or placebo (saline) were administered to a group of six women (mean age 46 years, range 38 - 55) with GSI. Resting maximum urethral pressure (MUP), blood pressure, heart rate and symptomatic side effects were simultaneously measured.

Results

Methoxamine caused a significant rise in systolic blood pressure, no significant increase in diastolic blood pressure and a significant fall in heart rate at the maximum dose (1mg/70kg/min). A non-significant rise in MUP was evoked (figures 1 - 4). Systemic side effects including piloerection, headache and cold extremities were reported by all 6 subjects and persisted for up to 18 hours in 2 women.

	Baseline (mean \pm SEM)	Methoxamine (1 mg/70 kg/min) (mean \pm SEM)	% change	p value*
Diastolic BP (mmHg)	64.7 \pm 3.35	71.0 \pm 3.10	+9.7	0.1462
Systolic BP (mmHg)	126.1 \pm 9.25	154.4 \pm 8.31	+22.4	<0.0001
Pulse (beats/min)	73.9 \pm 3.85	55.6 \pm 10.21	-24.8	0.0002
Max Urethral Pressure (cmH ₂ O)	89.2 \pm 8.37	109.3 \pm 15.73	+22.5	0.1159

*Using repeated measures ANOVA.

Conclusions

The results indicate that given the non-significant effect on urethral pressure, with associated piloerection and cardiovascular side-effects, the clinical usefulness of direct, peripherally acting subtype-selective α_1 -adrenoceptor agonists in the medical treatment of stress incontinence may be limited