Observations on the effect of intravenous methoxamine on limb blood flow

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Observations have been made on blood flow in normal forearms (FBF) and sympathetically blocked calves (S-CBF) (by extradural block to D10 using Bupioacaine 0·5% without adrenaline). All patients were conscious and unpremedicated, and were about to undergo treatment for bladder carcinoma. One patient was moderately hypertensive.

Two patients aged 69 and 70 years (mean BP, 61 mmHg) were given methoxamine

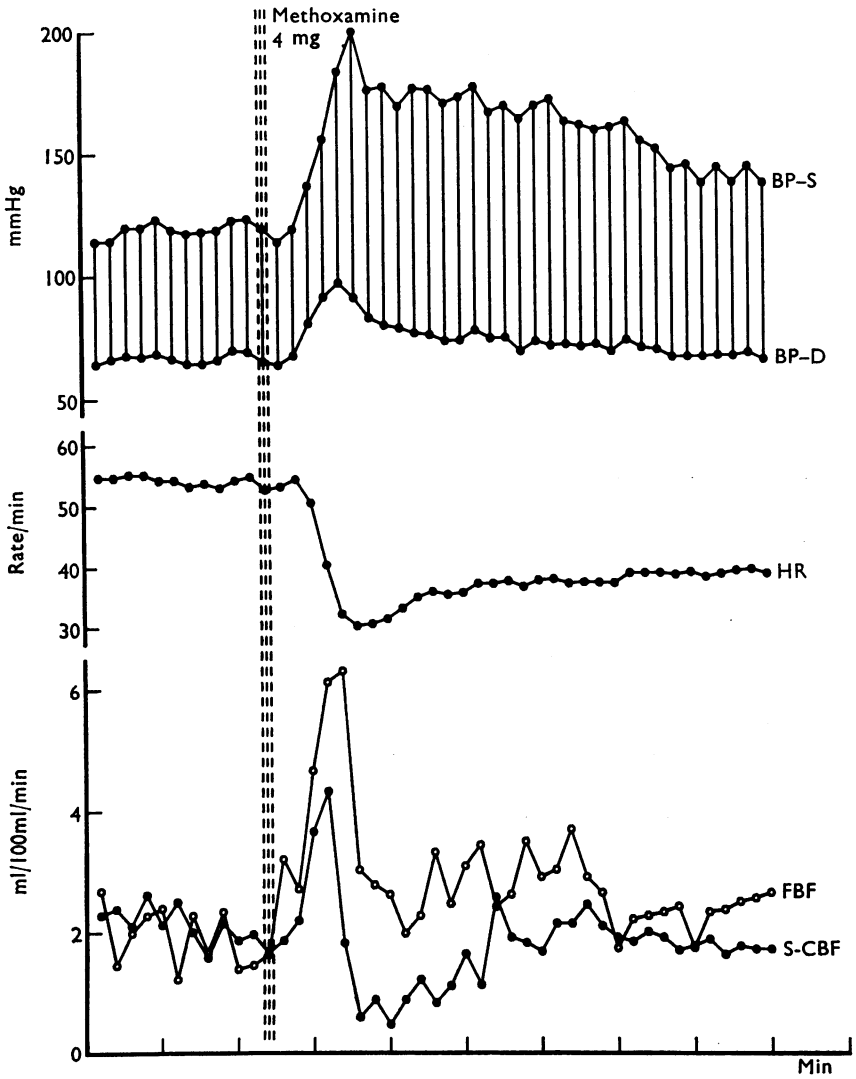

FIG. 1. Response to intravenous methoxamine in a patient with extradural block to D10. Systolic (BP-S) and diastolic (BP-D) blood pressure, heart rate (HR) and forearm and sympathectomized calf blood flow.

(4 mg IV). BP increased (+45%) and bradycardia developed (−31%). 48 s after injection peripheral blood flow again showed a biphasic response (FBF +141%; S-CBF +113%); 24 s later FBF had fallen but remained above control (+34%) whereas S-CBF had fallen to below control values (−47%). Thereafter FBF showed a secondary dilator phase (+37%) while S-CBF recovered slowly but remained below control (−16%). A typical response is illustrated in Fig. 1.

Three patients aged 69 to 77 years were given methoxamine (2 mg I.V.). The pattern of response for heart rate, blood pressure and limb blood flow was similar but reduced in magnitude.

The observed biphasic response of FBF to methoxamine in normal limbs is markedly similar to the adrenaline response demonstrated previously by Duff & Swan (1951). For S-CBF the response is similar to that seen during general anaesthesia (Fuzzey, Hope & Payne, 1972) and to the adrenaline response in sympathectomized limbs (Duff & Swan, 1951).

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Double blind controlled trial of indoramin in the treatment of essential hypertension

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Preliminary studies suggest that 3-(2-(4-benzamidopiperid-1-yl) ethyl) indole hydrochloride, indoramin, has a hypotensive action in man (Royds, 1972). Animal studies show that it has cardioinhibitory and α-adrenoceptor blocking action (Alps, Johnson & Wilson, 1970).

Initially, 5 patients with moderate hypertension were studied using divided doses of 60–240 mg daily for 1–10 months. This uncontrolled study did not show a convincing hypotensive effect. Dose dependent sedation was noted by all patients and both men treated experienced failure of ejaculation at the lowest dose of 60 mg daily.

A double blind controlled trial was undertaken in 8 patients with mild or moderate hypertension. On their first out-patient visit on no therapy, the mean arterial pressure of these patients was 196·3/115·0 mmHg. All patients underwent a run-in period on the active drug when increasing doses were administered until either the diastolic blood pressure was 100 mm or lower, or sedation prevented further increase in dosage. The mean daily dose of indoramin was 124 mg (range 60–150 mg). However in 3 patients hydrochlorothiazide 50 mg daily was also administered to bring the diastolic pressure below 105 mmHg, this was continued throughout the trial. There were two 6 week trial periods, one on active drug and