

## Symptoms in hypertension

Laymen (and many doctors) regard headache as the prime symptom of hypertension. Yet relatively few headaches are hypertensive in origin.<sup>1</sup> Headache seems to be one symptom of hypertension (as shown, for example, in a comparison of hypertensive patients with controls in a recent questionnaire study) yet—as Bulpitt *et al*<sup>2</sup> admit—“the prevalence of headache in hypertension clinic patients is high since the blood pressure is often not taken and hypertension not diagnosed without this symptom.” Furthermore, the occurrence of headache in hypertensives is closely related to whether they are aware of the condition and is then often associated with features of anxiety.<sup>1</sup> Symptoms truly related to the disease can be assessed only if they are produced spontaneously, and techniques<sup>1</sup> have been used to avoid suggesting a symptom: the questionnaire method necessarily contravenes this approach.

Everybody knows that an individual with hypertension may feel well and be free of symptoms until some disaster such as cardiac infarction or stroke occurs; the apparent intolerance of hypertensive patients to the side effects of treatment partly reflects their feeling of well-being when untreated. A further problem is that many symptoms (at any rate as evaluated by a simple questionnaire without supplementary cross-examination) are similar for hypertension and for the effects of treatment. Blurred vision may be evidence of hypertensive retinopathy or of the effects of sympathetic-blocking drugs; faintness or unsteadiness on standing may derive from brain-stem ischaemia as an effect of hypertension or from postural hypotension produced by treatment; nocturia may be due to renal failure from hypertension or to diuretic treatment; and depression, which seems to be a feature of hypertension, may be produced by some drugs such as reserpine. Whether these symptoms persist when hypertension is reviewed after one year on treatment is of little relevance to hypertension as their cause. Correlation of loss of a symptom such as headache with objective evidence of a fall in blood pressure need not confirm<sup>2</sup> the hypertensive origin of the symptom. Bulpitt *et al* argue that unless “neurosis is improved more when the systolic blood pressure is reduced by an average of 60 mm Hg than when it is reduced by 34 mm Hg” there must be a correlation, but they ignore the attitude of the physician to successful treatment, which may be communicated to the patient.

This study by Bulpitt *et al* did not include enough patients to allow separate assessment of the many different drugs used

in treatment. The different side effects produced by individual drugs were, however, analysed in detail previously<sup>3</sup> by the same group. Gratifyingly, the net improvement of symptoms in hypertensive patients with treatment was similar to that reported in controls over a similar period without treatment, so that any gain in symptoms from treatment was balanced by the loss of symptoms attributed to the hypertension or its accompanying anxiety. Again, much must depend on the doctor's personality.

From the patient's point of view it may not be reasonable to pool all symptoms as if they had the same importance. Symptoms may assume a disproportionate significance for some individuals—impotence in young men, for example—and treatment can be tailored to allow for appropriate side effects in a given patient, as Bulpitt and Dollery have emphasised.<sup>3</sup>

Nevertheless, with these reservations, the questionnaire study<sup>2</sup> did produce useful conclusions. Untreated hypertension is associated with headache, particularly waking headache; blurred vision; depression; and, to a lesser extent, faintness and nocturia. Treatment relieved unsteadiness and headache but failed to improve nocturia or vivid dreams. Relief of symptoms was related to the fall in blood pressure for headache, including waking headache. Some symptoms were associated with hypertension whether treated or untreated. These included nocturia and faintness (unsteadiness on standing or in the morning) as might be expected if a hypertensive symptom were exchanged for a drug effect. Symptoms specifically associated with treatment<sup>3</sup> were vivid dreams (a feature of propranolol therapy); sleepiness and weakness of the limbs (found on methyldopa); dry mouth (found with diuretics), and to a lesser extent slow walking pace and diarrhoea. Impotence and failure of ejaculation were related to treatment but were not major findings in this study “owing to the patients not being given adrenergic-neurone blocking drugs.”<sup>2</sup> This point emphasises the relation between side effects of hypotensive treatment and the particular drugs chosen, and it considerably reduces the general applicability of the study. The best treatment of hypertension is a drug regimen which produces no symptoms. The newer beta-adrenergic blocking drugs come close to this ideal.

<sup>1</sup> Stewart, I McD G, *Lancet*, 1953, 1, 1261.

<sup>2</sup> Bulpitt, C J, Dollery, C T, and Carne, S, *British Heart Journal*, 1976, 38, 121.

<sup>3</sup> Bulpitt, C J, and Dollery, C T, *British Medical Journal*, 1973, 3, 485.