Management of mild hypertension

Too little emphasis on metabolic factors

EDITOR,—I was disappointed that the World Health Organisation-International Society of Hypertension placed such little emphasis on the impact of metabolic factors on the management of essential hypertension.[1] Insulin insensitivity accompanying hypertension is associated with established or subsequent dyslipoproteinaemia (low high density lipoprotein cholesterol concentration, hypercholesterolaemia, and hypertriglyceridaemia) and glucose intolerance in at least 30% of patients.[2,3] These disturbances will be compounded by treatment with preparations that combine a thiazide with a β blocker, leading to an 11-fold increased incidence of diabetes over the following 10 years.[4]

Although the published guidelines recommend treatment with a diuretic in combination with a β blocker for mild hypertension,[1] they contain no suggestion that screening for metabolic dysfunction should be routine in the work up of hypertensive patients as an aid to the selection of appropriate pharmacological treatment. Nor is the need for continued surveillance for the development of diabetes mentioned. This seems paradoxical since the paper acknowledges that "serious cardiovascular disease is also determined by... diabetes, dyslipidaemia, central obesity."

I suspect that I am not alone in frequently stopping treatment with a preparation combining a thiazide with a β blocker in patients recently diagnosed as diabetic who are overweight or elderly and have antecedent hypertension; this often leads to improved metabolic control.

The introduction of the paper states that guidelines should provide critical and balanced information on benefits and limitations of the various therapeutic interventions. These guidelines seem lopsided to me.

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1 Summary of 1993 World Health Organisation-International Society of Hypertension guidelines for the management of mild hypertension. *BMJ* 1993;307:1541-6. (11 December.)
2 Eriksson H, Welin L, Wilhelmsen L, Larsson B, Ohlson LO, Svardsudd K, *et al.* Metabolic disturbances in hypertension: results from the population study "men born in 1913." *J Intern Med* 1992;232:389-95.
3 Mykkänen L, Kuusisto J, Pylörölä K, Laakso M. Cardiovascular disease risk factors as predictors of type 2 (non-insulin-dependent) diabetes mellitus in elderly subjects. *Diabetologia* 1993;36:553-9.
4 Bengtsson C, Blohmé G, Lapidus L, Lindquist O, Lundgren H, Nyström E, *et al.* Do antihypertensive drugs precipitate diabetes? *BMJ* 1984;289:1495-7.

Target systolic blood pressure too low

EDITOR,—The summary of the World Health Organisation-International Society of Hypertension guidelines on the management of mild hypertension contains a recommendation for target systolic blood pressure in elderly patients that is not supported by evidence from trials and might be dangerous if adopted in clinical practice.[1] The guidelines advise that a goal of 140 mm Hg should be aimed at. Although the rider "if this is tolerated" is added, this can be tested only by attempts to lower the pressure to this level. The five randomised trials in elderly patients adopted different goals and achieved different reductions in the treatment groups (table).

Blood pressure that was target of treatment and that achieved in five trials in elderly people

Trial	Target blood pressure (mm Hg)	Mean blood pressure achieved in treatment group (mm Hg)
EWPHE[2]	No systolic target Diastolic <90	148/85
Coope and Warrender[3]	Systolic <160 Diastolic <105	165/74
MRC[4]	Systolic <150-160 No diastolic target	152/77
STOP[5]	Systolic <160 Diastolic <95	167/87
SHEP[6]	Systolic <160 or a reduction of 20 No diastolic target	144/68

EWPHE=European Working Party on High Blood Pressure in the Elderly. MRC=Medical Research Council. STOP=Swedish trial in old patients with hypertension. SHEP=Systolic hypertension in the elderly programme.

Variations in the blood pressure achieved reflect to some extent different baseline blood pressures. In no instance, however, was 140 mm Hg adopted as a goal, and this would be difficult to achieve in most elderly patients with the pharmacological treatments available at present.

The substantial reductions in stroke produced by lowering blood pressure in these trials have been the result of the regimens that were tested, and these should form the basis of clinical recommendations.

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1 Subcommittee of WHO/ISH Mild Hypertension Liaison Committee. Summary of 1993 World Health Organisation-International Society of Hypertension guidelines for the management of mild hypertension. *BMJ* 1993;307:1541-9. (11 December.)
2 Amery A, Birkenhager WH, Brixko P, Bulpitt C, Clement D, Dervyttere M, *et al.* Mortality and morbidity results from the European working party on high blood pressure in the elderly trial. *Lancet* 1985;i:1349-54.
3 Coope J, Warrender TS. Randomised trial of treatment of hypertension in elderly patients in primary care. *BMJ* 1986; 293:1145-51.
4 Medical Research Council Working Party. MRC trial of treatment of hypertension in older adults: principal results. *BMJ* 1992;304:405-12.
5 Dahlof B, Lindholm LH, Hanson L, Scherston B, Ekborn T, Wester P-O. Morbidity and mortality in the Swedish trial in old patients with hypertension (STOP—hypertension). *Lancet* 1991;338:1281-5.
6 SHEP Co-operative Research Group. Prevention of stroke by antihypertensive drug treatment in older patients with isolated systolic hypertension. *JAMA* 1991;265:3255-64.

Author's reply

EDITOR,—Peter H Winocour's concern about metabolic disturbances in hypertension is well placed, and I believe that one of the novel aspects of the guidelines is the emphasis on the need for an overall assessment of cardiovascular risk in patients with hypertension. The paper published in the *BMJ* is a condensed version of the full guidelines; this summary does not include the section on evaluation, which mentions measurement of total and high density lipoprotein cholesterol and blood glucose concentrations among minimum investigations to be performed in hypertensive patients. Insistence on the role of additional risk factors, however, clearly implies the need to assess metabolic variables.

We also omitted a detailed discussion on the benefits and limitations of each of the main classes of antihypertensive agents, but the full text recognises that "diuretics may cause a variety of unwanted metabolic effects (principally potassium depletion and reduced glucose tolerance)" and that ß blockers "have limitations in patients with dyslipidaemia or reduced glucose tolerance." Although these contraindications are not specifically mentioned in the summary paper, they are implicit in the statement: "The appropriate choice of a particular class of antihypertensive drugs for a patient may also be determined by the person's other characteristics because differences in the risk profile and in side effects are extensive in different patients".

John Coope also raises an important point—namely, the blood pressure that is the goal of treatment. Unfortunately, no firm guidelines can yet be provided by prospective trials as no trials, even those that Coope mentions, have randomised hypertensive patients to different levels of achieved blood pressure. The hypertension optimal treatment trial, which is being carried out at the moment, aims at providing an answer. Until this trial is completed the blood pressure chosen as the goal of treatment remains arbitrary. Coope seems to prefer to aim at the average blood pressure reached in trials (which was as low as 144/68 mm Hg in one of the trials he mentions). On the other hand, the guidelines committee chose to follow the indications provided by observational epidemiological studies and suggests that the goal of treatment should be the maximum reduction in blood pressure that can be tolerated.

The guidelines committee believes that "guidelines should not be seen as rigid constraints on a practising doctor's decisions." Particularly when no firm evidence is available, as in the case of the blood pressure that should be the goal of treatment, it is certainly possible for Coope to take a more conservative approach.

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Which guidelines to follow?

EDITOR,—The fact that the *BMJ* has published two sets of guidelines on managing hypertension—from the British Hypertension Society[1] and the World Health Organisation-International Society of Hypertension[2]—in one year raises questions about the development of guidelines. What are we to make of the differences between the two sets of guidelines? The overall treatment strategy and many of the details are the same, but there are slight differences in the recommended thresholds for treatment and important differences in the goals of treatment and advice on exercise and on stopping drug treatment.

Both guidelines were developed by informal consensus, without explicit criteria for choosing the evidence for specific recommendations. There is surprisingly little overlap in the references cited. The opaque relation between the guidelines and evidence from research makes it difficult for