Detection of hypertension in accident and emergency departments

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SUMMARY

Routine blood pressure measurements are performed on all non-ambulatory patients attending the Accident and Emergency Department, Leicester Royal Infirmary, England. However, the patient's general practitioner is not always informed of the reading, even if it is found to be raised. One of the chief reasons for this omission is the fact that single, elevated blood pressure readings taken in an accident and emergency department are considered to be of doubtful significance.

Sixty patients with a single, elevated blood pressure measurement were studied. Fifteen of these patients were found to continue to have an elevated blood pressure measurement when reviewed in a quiet, relaxed environment. Fourteen of these 15 patients are currently being treated for hypertension after independent assessment by their family practitioners.

It was concluded that single, elevated blood pressure readings are useful indicators of hypertension in non-ambulatory patients attending accident and emergency departments. It is, therefore, important to inform general practitioners of incidentally raised blood pressure readings.

INTRODUCTION

The value of early detection and good management of essential hypertension is well recognised: the risk of stroke is reduced by 43% (Beevers *et al.*, 1973). Despite this, many epidemiological studies have illustrated inadequacies of detection and management of hypertension (Barlow *et al.*, 1977; Coope, 1984).

This study seeks to determine the value of single, elevated blood pressure measurements in non-ambulatory patients who have been discharged back to the care of their family practitioner following their accident and emergency attendance.

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METHOD

At the Accident and Emergency Department, Leicester Royal Infirmary, all patients requiring more than the most superficial examination are placed on a trolley or couch and have basic observations, including a blood pressure measurement taken and recorded by a nurse.

The notes of 2000 patients attending the department during the period of a fortnight in October 1985 were studied. Sixty consecutive patients aged between 25 and 65 with co-incidental, single-reading hypertension were identified. Known hypertensives and patients who were admitted to hospital when they first attended were excluded from the study.

This highly selective group were all noted to have a diastolic pressure of greater than 95 mm of mercury and were recalled.

On their return, patients were met by a doctor in a quiet area of the department and blood pressure measurement was taken using a recently calibrated sphygmomanometer. Patients were semi-recumbant with the elbow at the level of the heart, and their readings were taken by a single doctor using palpation and auscultation (O'Brien *et al.*, 1985). Measurements were repeated at 10 min intervals until consistent readings were obtained. Both arms were studied. Patients with consistently elevated blood pressure readings were informed of the finding and the relevant information was communicated to the family practitioner by post.

RESULTS

Of the 60 patients recalled, seven defaulted—four because they lived in the outskirts of Leicestershire. None of the defaulters are currently being treated for hypertension by their GPs.

In the group of 53 patients who did attend, 15 exhibited raised diastolic blood pressure readings (greater than 95 mm of mercury). Fourteen of these patients are now being treated for hypertension after independent assessment by their GPs.

DISCUSSION

The authors believe that management of hypertension should remain with the family practitioner but that every opportunity should be taken by doctors in other specialities to assist in detection of elevated blood pressure. In a busy accident and emergency department, it is tempting to dismiss an incidental high blood pressure reading as being due to factors such as the presenting injury, stressful surroundings and the 'pressor effect' of medical staff (O'Brien *et al.*, 1985). This study confirms the value of informing family practitioners of co-incidental raised blood pressure readings. It does not attempt to measure the incidence of undetected hypertension in patients attending the accident and emergency department.

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