

## Changing Attitudes to Hypertension

**D**OCTOR LANGFELD'S REPORT, in this issue, on the deficient care of hypertensive patients is one of several indicating that essential hypertension is still poorly managed in this country. Despite conclusive evidence to the contrary, many if not most physicians still consider essential hypertension to be a benign disease for which reassurance rather than treatment is needed.

The persistence of this therapeutic nihilism is surprising in view of the fact that there are few chronic diseases for which medical treatment is more rational or better documented than for essential hypertension. All epidemiological data on the subject, such as the life insurance statistics (1) and the Framingham Study (2, 3) make clear that the risk of cardiovascular complications is directly related to the level of blood pressure: the higher the level, the greater the risk. Such a linear relationship should lead to the conclusion that the level of blood pressure is causally related to cardiovascular damage, because, if it were not, no such relation would exist.

Confusion has arisen from a failure to distinguish between casual and basal blood pressure. Physicians have been overly impressed by the exceptional patient with high pressures who survives without cardiovascular damage for many years. Usually these patients are women beyond the menopausal age with labile hypertension who often have nearly normal levels of blood pressure at home or during hospitalization. Physicians reassure themselves for doing nothing about their hypertensive patients by overemphasizing these exceptional cases. The more representative epidemiological studies, however, indicate clearly that even mild elevations of blood pressure, especially in persons below age 45 years and in men at all ages, carries a high risk. Therefore the physician is not justified to dismiss lightly the prognostic implications of an elevated blood pressure.

Hypertension and hypercholesterolemia are the leading risk factors in coronary artery disease. Hypertension is by far the most important risk factor in stroke. According to the Framingham Study, con-

gestive heart failure is six times more common in hypertensive than in normotensive individuals. Hypertension is a leading cause of renal failure in middle and old age.

Well-controlled, prospective, therapeutic trials, which compared results of treatment with antihypertensive agents against no treatment, have supplied definitive evidence that reducing blood pressure will prevent much of the cardiovascular damage associated with hypertension (4-6). The Veterans Administration Cooperative Study showed that in male patients with diastolic blood pressures in the range of 90 to 115 mm Hg the risk of developing cardiovascular complications over a 5-year period was reduced from 55 to 18 percent with the effective use of antihypertensive drugs. The greatest benefit of treatment was seen in the subgroup with diastolic blood pressures of 105 mm Hg or higher. Strokes were reduced by a ratio of four to one, fatal or permanently crippling strokes by a ratio of 12 to one. Such complications as congestive heart failure, acceleration of hypertension, progressive renal damage, and dissecting aneurysm were seen only in the control group and were completely prevented in the treated patients. The only complications not significantly affected by the treatment were those due to coronary artery disease. In view of the gradual development of atherosclerosis, treatment may have been started too late, and in these cases earlier institution of antihypertensive drugs might have favorably influenced this complication as well.

Many hypertensive complications can be reproduced in animals. One example is the strain of Wistar rats in which hypertension develops spontaneously. In these rats antihypertensive drug treatment will completely protect from development of cardiovascular abnormalities, including left ventricular hypertrophy, arterial disease, and nephrosclerosis (7). Such studies show clearly that the cardiovascular complications of hypertension are the direct result of the elevated blood pressure and can be prevented by re-

ducing pressure to normal levels.

What is needed to reverse the present toll of needless disability and death from uncontrolled hypertension? The first requirement is to convince physicians that the complications of hypertension are preventable. The second is to identify the large number of patients with hypertension requiring treatment who are presently unrecognized. The third is to motivate patients to accept and continue with treatment even though they have no symptoms.

The first objective can be met by an intensive educational effort in the medical profession, the second by organized screening programs, and the third by cooperation between the profession and the public media to bring about a change in the public attitude toward hypertension. Admittedly, these objectives are difficult to achieve, but much more can be done than is being done now.

Hypertension is such a ubiquitous disease that effective identification, diagnostic study, and long-term treatment will impose a heavy load on the existing system of medical care. It has, therefore, been proposed that physician assistants, nurse practitioners, and allied health persons who have received special training in hypertension could take on much of the routine in screening, diagnostic study, and supervision of follow-up care that is presently done by physicians. The physician would have a more supervisory rather than direct role in patient care, although he would necessarily be involved in diagnosis, initiation of treatment, and management of unusual problems. There is a precedent in the coronary care units, where it has been shown conclusively that specially trained nurses can effectively collect and interpret clinical data and make appropriate therapeutic decisions within a limited sphere of medical practice.

Much of the diagnostic study and follow-up care

of hypertensive patients is routine. For most patients with hypertension an elaborate diagnostic study for curable hypertension is not justified by either the expense or the chances of finding a curable condition. Furthermore, treatment seldom needs to be complicated. Initially, model clinics could serve as proving grounds for developing the most efficient methods of detection and delivery of optimal care, employing nurse specialists, physician assistants, and other allied health personnel to the fullest possible extent.

Specialists in internal medicine can and should lead in bringing about the necessary changes in our system of health care so that hypertension will be effectively treated. These changes call for well-informed support and active participation of all physicians in internal medicine. (EDWARD D. FREIS, M.D., *Veterans Administration Hospital and Georgetown University Hospital, Washington, D.C.*)

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