Conclusion

From the evidence presented at this symposium, there is little doubt that angiotensin-converting enzyme (ACE) inhibitors are effective in lowering BP in elderly hypertensive patients. It is equally clear that preexisting plasma renin activity is not a reliable indicator of the antihypertensive effect of ACE inhibitors. It has been proved to be conceptually simplistic to assume that the amount of renin circulating in the plasma determines the activity of the system. Rather, data show that ACE inhibitors significantly reduce angiotensin II levels, even in the presence of low plasma renin levels.

We have also seen that it may be necessary to reduce the dosage in elderly patients, when there is evidence of renal impairment, to avoid accumulation of the drug. However, the studies discussed indicate that it is eminently possible to obtain a satisfactory BP response with a low dose. Additionally, it is important to bear in mind that dose determinations for a given drug present problems for any hypertensive patient, regardless of age.

With regard to side effects, the true incidence in the elderly remains unclear. Many more studies are needed with much larger populations to obtain precise data. Data are also scarce regarding the role of ACE inhibitors in reducing cardiovascular morbidity. That ACE inhibitors may indirectly reduce the incidence of sudden death due to severe arrhythmias is an interesting and important hypothesis that should be confirmed through clinical studies.

Finally, in terms of preservation of renal function, there are experimental data available to suggest that treatment with ACE inhibitors may reduce further loss of renal function. If it can be confirmed that ACE inhibitors preserve renal function in elderly patients who have reduced glomerular filtration rates, this would, in and of itself, be a compelling reason for the use of these agents in this compromised and vulnerable population.

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