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Questions and Answers

Question: Once initiated, antihypertensive drug therapy is usually lifelong, and there are clear clinical advantages to strategies that improve compliance, for example, once-daily therapy using a drug with a low adverse effect profile. Is there any evidence that increasing compliance reduces healthcare costs for patients with hypertension?

Professor Helios Pardell: Yes, there is some preliminary evidence suggesting that improving therapeutic compliance contributes to reducing the healthcare costs of the lifelong management of hypertension. Nevertheless, more information is needed to allow a clear conclusion that compliance is inversely correlated with costs. Most of the reduction in healthcare costs can be realised by reducing the number of physician visits and fewer changes in the initial therapeutic regimen.

Question: Pharmacoeconomic studies often include assessment of quality of life. Of course, treatment with antihypertensive drugs has positive effects on morbidity and mortality in the medium to long term, but may have negative effects on quality of life in the short term. Is anything known about variations in quality of life among patients taking the various classes of antihypertensive drugs?

Prof. Pardell: Yes, there is good information about the influence of different antihypertensive agents on the quality of life of treated patients. Indeed, most studies suggest that the use of diuretics at low dosages has no adverse effects on the quality of life of patients with hypertension.

Question: How much of the recent resurgence in the use of diuretics has been caused by physician and patient concerns over the safety of other classes of antihypertensive agents?

Professor Norman Kaplan: This may play a part, but much more important in my view is the increasing recognition of the tolerability, efficacy and excellent outcomes achieved with low doses of diuretics.

Question: The use of low dosage long acting diuretics as monotherapy appears to be an appropriate approach to the treatment of mild hypertension. What is the place of diuretics in patients with more severe but uncomplicated hypertension?

Prof. Kaplan: Diuretics are almost always essential for the control of patients with more severe hypertension. It is usually necessary to use 2, 3 or 4 drugs to control such patients and a diuretic will be critical to keep plasma volume slightly contracted so the full effect of other drugs can be manifested.

Question: Has the decline in population blood pressure noted from 1960 to 1980 been confirmed by more recent results, and has a mechanism been proposed for this decline?

Professor Morris Brown and Dr Stephen Haydock: Most recent studies assessing the prevalence of hypertension in industrialised societies show similar falls in prevalence during the 1980s. This is particularly seen in women. This fall in population blood pressure is associated with increased recreational exercise and reduced salt intake and alcohol consumption. A fall in population blood pressure may thus reflect increasing health awareness.

Question: The relationship between blood pressure and environmental factors such as diet, exercise and alcohol consumption suggests that worthwhile reductions in blood pressure, at least in mild hypertension, could be obtained from nonpharmacological approaches. Is it known what proportion of patients who attempt to reduce their blood pressure through nonpharmacological means are successful in obtaining sustained reductions?

Prof. Brown and Dr Haydock: It is difficult to give such a figure. Most intervention studies have concentrated on specific modifications such as bodyweight loss or a reduction in salt intake rather than general advice. Analyses tend to report mean reductions in blood pressure rather than individual patient responses. Studies show a tendency for the effect of nonpharmacological approaches to wane over time, but a benefit for up to 4 years after initiation has been demonstrated. The general feeling is that clear verbal and written advice on nonpharmacological measures can result in blood pressure reductions similar to those with drug therapy in motivated individuals.

Question: Professor Leonetti, I believe that when the ambulatory blood pressure measurements were analysed by the group method, the trough-to-peak ratios for indapamide SR 1.5mg were even better than you mention – 85% for diastolic blood pressure and 89% for systolic blood pressure. What is the clinical significance of such favourable ratios?

Professor Gastone Leonetti: It has been shown since the advent of ambulatory monitoring that blood pressure variability is an independent risk factor for target organ damage, and that it may have a negative prognostic influence with regard to cardiovascular complications. A very high trough-to-peak ratio indicates that 24-hour blood pressure control is clinically satisfactory, and this is currently believed to be the favoured pattern for a better antihypertensive effect in terms of cardiovascular morbidity and mortality, compared with a similar mean 24-hour blood pressure reduction but with greater variability.

Question: Left ventricular hypertrophy (LVH) is often found in patients with sustained hypertension. What do the results of the LIVE trial[1] tell us about the role of indapamide SR 1.5mg in causing regression of this sign of target organ damage?

Prof. Leonetti: Many studies have shown that LVH is an independent risk factor for cardiovascular complications, and some studies do suggest that regression or prevention of LVH can improve the prognosis in patients with hypertension. The results of the LIVE trial support previous observations that treatment with indapamide produces a greater regression of LVH than can be obtained with an ACE inhibitor. If these results can be confirmed, they will strengthen the case for indapamide in the treatment of arterial hypertension because, in addition to a significant reduction in blood pressure, it also appears to cause regression of damage to a target organ.

Reference

1. Gosse P, Dubourg O, Gueret P, et al. Regression of left ventricular hypertrophy in hypertensive patients treated with indapamide SR 1.5mg versus enalapril 20mg: results of LIVE study [abstract]. J Am Coll Cardiol 1999; 33 Suppl. A: 246