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Letters to the Editor

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Letters to the Editor

Letters to the Editor must not exceed 2 DIN A4 pages in length and have no more than three authors and five references and should not contain tables or figures. Only some letters will be published.

Re: Wink K. Are Beta-Blockers Efficacious as First-Line Therapy for Hypertension in the Elderly? J Clin Basic Cardiol 2001; 4: 235–8.

To the editors:

The review of Wink [1] on beta-blocker efficacy in the elderly is well done and shows, as we did previously [2], that there are no studies showing that beta-blockers reduce morbidity and mortality in the geriatric population. However, we take issue with the conclusion of Dr. Wink that "Beta-blockers are only efficacious for hypertension in the elderly in combination with diuretics." In order for this to be true, one would have to show that the addition of beta-blockers to diuretics had a significant impact on morbidity and mortality. In the Medical Research Council (MRC) study [3], quite the contrary was the case. Whenever a beta-blocker was added to the diuretic, morbidity and mortality benefits distinctly diminished and vanished completely with beta-blocker therapy [4]. In the Systolic Hypertension in the Elderly Program (SHEP) study, Kostis et al. [5] clearly stated, "Additional (independent) benefits attributable to atenolol or to reserpine were not identified." There are no other studies in which the effects of beta-blocker addition to diuretic therapy were evaluated. This clearly indicates that beta-blockers when compared with diuretics, at best, function as innocent bystanders but, at worst, as shown in the MRC may blunt the beneficial effect of diuretics. Thus, the conclusion should be that the beta-blockers, whether given singly or in combination, are useless in the treatment of hypertension in the elderly.

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Author's reply:

The hypothesis of Messerli et al. [1], "Are β-blockers efficacious as first line therapy for hypertension in the elderly?" can be agreed. However, the hypothesis that "Beta-blockers are efficacious for hypertension in the elderly only in combination with diuretics" can be defended. In order to verify this hypothesis one would have to prove, that the combination of beta-blockers and diuretics is superior in preventing morbidity and mortality to one of the components. There were no studies with exactly this design.

There are only studies, in which patients treated with beta-blockers in combination with other antihypertensive drugs were compared to placebo.

In the Medical Research Council (MRC) study [2] as well as in the Systolic Hypertension in the Elderly Program (SHEP) [3] beta-blockers and diuretics could be added to diuretics respectively beta-blockers.

The combination of beta-blockers and diuretics was successful in both trials and the relative risks for the primary endpoints fatal and non-fatal strokes could be significantly reduced by 24 % and 35 %, respectively.

The re-analyses of subgroups in these studies [4, 5] is problematical, because in the MRC study, in which nearly 50 % of the patients were withdrawn, the two placebo groups were combined, and the subgroups with and without beta-blockers in the SHEP-study were not randomized.

In the SHEP study it could not be excluded, that the additional therapy with beta-blockers as a two step drug has prevented a higher rate of events.

Therefore, the hypothesis could be maintained that "Beta-blockers seemed only efficacious as first line therapy for hypertension in the elderly in combination with diuretics".

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Re: Wink K. Are Beta-Blockers Efficacious as First Line Therapy for Hypertension in the Elderly? J Clin Basic Cardiol 2001; 4: 235–8.

To the editors:

The latest guidelines of the JNC VI [1] and the WHO/ISH [2] suggest beta-blockers be used as first line drugs in the treatment of arterial hypertension, and the JNC VI even "recommends starting pharmacologic therapy with diuretics and beta-blockers for patients with uncomplicated hypertension" [1]. On the other hand, both guidelines mentioned above [1, 2] consider both elderly patients and isolated systolic hypertension as compelling indications for diuretics and calcium antagonists. Thus, they explicitly do not recommend beta-blockers as first line drugs in elderly hypertensives, this suggestion being in good accordance with the results of Dickerson et al. showing that beta-blockers and ACE-inhibitors are more effective in younger patients whereas diuretics and calcium antagonists perform better in the elderly [3]. Besides, isolated systolic hypertension is most common in the elderly. On the other hand, myocardial infarction, tachyarrhythmias, heart failure, diabetes mellitus and preoperative hypertension are given as compelling or at least possible indications for beta-blockers [1, 2], and, indeed, there is good evidence in the literature for these recommendations since beta-blockers have been shown to reduce both morbidity and mortality particularly in patients with myocardial infarction [4], tachyarrhythmias [5, 6], heart failure [7–9], diabetes mellitus [10], and preoperative hypertension [11, 12]. In none of these studies beta-blockers were shown to be ineffective in the elderly, in contrary, Gottlieb et al. report a study in 201,752 patients showing that older patients with myocardial infarction had an even greater benefit when treated with beta-blockade [13].

Particularly in the 1970s and 1980s, therapy of arterial hypertension was frequently started with high doses of beta-blockers with rather short half-lives, thus causing a lot of side effects and a low compliance. In this context, one of the great attainments of the last decade was the understanding that beta-blocking therapy should be started with low doses of substances with a long half-live followed by a slow up-titration according to a policy of "Start low – go slow!", thus being the final requisite to change *congestive heart failure* from a contraindication to a compelling indication for beta-blockers. Whenever antihypertensive treatment is started complying with this principle, the extent of both side effects and compliance does not differ between beta-blockers, diuretics, calcium antagonists and ACE inhibitors [14].

Actually, there are clear trends in pharmacological therapy in general and particularly in arterial hypertension to treat patients as a whole rather than single test results such as elevated blood pressure, blood glucose or lipids in plasma, thus being in good accordance with the latest guidelines of the JNC VI [1] and the WHO/ISH [2] suggesting that the choice of drugs in pharmacological treatment of arterial hypertension depends first of all on the presence of concomitant disorders which determine whether or not there is a compelling indication, a possible indication, a possible contraindication or a compelling contraindication for a particular class of drugs. Therefore, I do agree with Messerli [15] and Wink [16] that beta-blockers should not be used as drugs of first choice in elderly patients with arterial hypertension without concomitant disorders. However, I do believe that compelling indications for beta-blockers such as myocardial infarction, tachyarrhythmias, heart failure, diabetes mellitus and preoperative hypertension should be followed even in the elderly since beneficial outcomes have been shown widely independent on age [4–12] or elderly patients have been found to have an even greater benefit when treated with beta-blockers [13]. Therefore, I believe that the opinion of Messerli and Wink that beta-blockers are ineffective in preventing coronary heart disease, cardiovascular and all-cause mortality [15], that they are only efficacious in combination with diuretics in elderly patients with hypertension [16], or that they are useless in the treatment of hypertension in the elderly [17], is not valid whenever compelling indications for beta-blockers are present [1, 2].

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