



The Medical **Bulletin**

In Hypertension

Revisiting α -Blockers for Hypertension Allan S. Brett, MD, reviewing Hundemer GL et al. Am J Kidney Dis 2021 Feb An observational Canadian study provides insights into potential benefits and harms associated with these drugs. Use of α -blockers for treating hypertension declined after the ALLHAT study — which examined initial monotherapy — showed that heart failure developed more frequently in patients who took doxazosin than in those who took other drugs (NEJM JW Gen Med Feb 1 2003 and JAMA 2002; 288:2981). However, α -blockers still are prescribed occasionally as add-on therapy for patients with resistant hypertension, many of whom have impaired renal function. In this observational study from Canada, researchers identified 381,000 hypertensive patients (age, >65), 4% of whom had received the α -blockers doxazosin or terazosin; the drugs presumably were given for hypertension, because patients with prostatic hyperplasia were excluded. Within this cohort, 16,000 α -blocker users were compared with 16,000 propensity-matched controls who did not use α -blockers; two thirds of patients in both groups were taking 4 or 5 antihypertensive drugs. Notable findings were as follows:

- Adverse cardiac events (i.e., myocardial infarction, coronary revascularization, heart failure, or atrial fibrillation) and death occurred less commonly in α -blocker users than in nonusers (cardiac events, 207 vs. 224 events per 1000 person-years; deaths, 61 vs. 68 per 1000 person-years). Favorable associations between α -blocker use and fewer cardiac events and deaths were especially striking in patients with baseline glomerular filtration rate (GFR) <30 mL/minute/1.73 m².
- Users of α -blockers were more likely to have >30% decline in GFR (121 vs. 107 cases per 1000 person-years) and progression to dialysis or renal transplant (15 vs. 11 cases per 1000 person-years).
- Syncope occurred more often with α -blocker use (20 vs. 16 events/1000 person-years).

COMMENT

This study suggests tradeoffs when α -blockers are used in hypertensive patients on multidrug regimens — fewer cardiac-related events and deaths, but worse renal outcomes. Although the study is observational, it supports use of α -blockers in selected patients with resistant hypertension. Unfortunately, blood pressure measurements were not available, so we can't tell whether improved blood pressure mediated the favorable cardiovascular and mortality outcomes.

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