**Outcome:**

Diabetes.

**Main Results:**

12 RCTs (72,333 patients without diabetes at baseline) met the selection criteria. 7 RCTs used ACE inhibitors and 5 used ARBs. These drugs were compared with placebo, diuretics, β-blockers, or calcium-channel antagonists. The mean duration of follow-up ranged from 1 to 6 years (median 4.5 y). Both ACE inhibitors and ARBs reduced risk for type 2 diabetes (Table).

**Conclusion:**

In patients with hypertension or cardiovascular risk factors, angiotensin-converting enzyme inhibitors and angiotensin-receptor blockers prevent the development of type 2 diabetes.

**Commentary**

The review by Abuissa and colleagues adds to the body of evidence, mostly derived from the secondary and post hoc analyses of RCTs, that diabetes incidence may be reduced by renin-angiotensin inhibitors, increased by thiazides and β-blockers, and largely unchanged by calcium-channel blockers (1).

Further evidence is required before renin-angiotensin inhibitors can be definitively considered to prevent diabetes. First, data from ongoing trials examining diabetes incidence as a predefined, primary endpoint are required (1). Second, documentation of a truly preventive (as opposed to a delaying or masking) effect is needed, which should include demonstration of a sustained reduction in diabetes incidence following an adequate, prolonged, drug-free washout period. Third, a blood pressure-independent reduction in diabetes-related macrovascular and microvascular endpoints would prove that the observed reduction in diabetes incidence is clinically relevant. To date, major differences in cardiovascular events among antihypertensive drug classes have not been shown (2), arguing against the clinical relevance of renin-angiotensin–induced reductions in diabetes incidence. One caveat is that such differences may become apparent with longer follow-up.

Blood pressure reduction to target levels, particularly in high-risk hypertensive patients, is paramount, not often attained, and commonly requires multidrug therapy, making the choice of initial therapy somewhat less important. Patients with compelling indications for a particular drug (e.g., β-blockers in heart failure) should not be denied therapy for fear of deleterious metabolic effects. It is reasonable to prescribe renin-angiotensin inhibitors preferentially in patients at high risk for type 2 diabetes, who already require antihypertensive drug treatment and have no compelling indication for a different agent. More definitive data are needed to recommend renin-angiotensin inhibitors solely for diabetes prevention.

**References**
