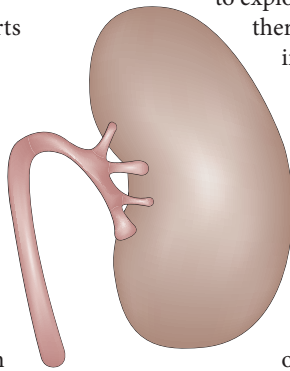


DIABETES

Candesartan does not reduce the risk of microalbuminuria

Bilous and colleagues report that treatment with the angiotensin-receptor blocker candesartan does not prevent microalbuminuria in patients with type 1 or type 2 diabetes mellitus who are normotensive or have well-controlled hypertension.

Blockade of the renin-angiotensin-aldosterone system is routinely used to delay progression of established nephropathy in patients with diabetes mellitus. Some experts have suggested that such treatment could also prevent microalbuminuria (an urinary albumin excretion rate ≥ 20 mg/min), which is a strong predictor of nephropathy, end-stage renal disease and cardiovascular disease, in hypertensive patients with type 2 diabetes mellitus. However, no data on



the effects of this approach were available for patients with normal blood pressure or well-controlled hypertension, and the data for patients with type 1 diabetes mellitus were inconclusive.

These researchers analyzed data from three previously published, randomized, placebo-controlled trials of the Diabetic Retinopathy Candesartan Trials program, which was originally designed to explore the effect of candesartan therapy (16 mg daily, gradually increased to 32 mg daily) on microvascular complications in the retina. Data on 3,326 patients with type 1 diabetes mellitus and 1,905 patients with type 2 diabetes mellitus were analyzed; most participants had normal blood pressure and all initially had normal rates of urinary albumin excretion.

During follow-up (median 4.7 years), candesartan treatment resulted in slightly lower rates of urinary albumin excretion compared with placebo, but it had no significant effect on the prevention of microalbuminuria in patients with either type 1 or type 2 diabetes mellitus. Although the follow-up period was too short to establish whether the observed decrease in urinary albumin excretion has any beneficial effect for the patients in the long term, the authors do not recommend the use of angiotensin-receptor blockers for the primary prevention of nephropathy in patients with diabetes mellitus who have a low risk of vasculopathy.

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Original article Bilous, R. *et al.* Effect of candesartan on microalbuminuria and albumin excretion rate in diabetes: three randomized trials. *Ann. Intern. Med.* **151**, 11–20 (2009).