

Losartan

A Viewpoint by Donald R. Studney

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Losartan, an angiotensin receptor blocker (ARB) was recently approved by the US FDA for use in delaying the progression of renal disease in patients with type 2 diabetes mellitus. Additionally, the American Diabetes Association recently published new guidelines recommending that ARBs are used in the treatment of patients with type 2 diabetes with nephropathy.

The first such indication was for the ACE inhibitor captopril in type 1 diabetes. Clinicians treating diabetes now have a broader evidence base on which to extend the concept of beneficial angiotensin blockade to type 2 individuals (who comprise the majority of patients with diabetes) and to include the use of the well-tolerated ARB class of drugs for nephroprotection.

A study with irbesartan suggests that this may be class effect and that further use of an ARB at the earlier microalbuminuria stage can prevent progression to overt nephropathy.

The precise mechanism by which nephropathy and proteinuria are ameliorated by losartan is uncertain but it is clear that this is not merely due to blood pressure reduction. Other possible mechanisms include a reduction in endothelial dysfunction and in renal growth transforming factor. Vascular protection in diabetes is also an emerging issue as trials with both ACE inhibitors and ARBs continue to show protective effects in patients with and without diabetes.

These studies focus attention on the broader issue of the choice of antihypertensive drug in uncomplicated hypertension in diabetes. The Heart Outcomes Prevention Evaluation (HOPE) trial showed substantial cardiac risk reduction in type 2 diabetes with the ACE inhibitor ramipril when compared with placebo in normotensive patients. Present evidence may suggest that ACE inhibitors could be used in patients with predominantly vascular risks and ARBs in those with microalbuminuria or excess renal risk. Trials comparing ACE inhibitors, ARBs and combinations of both are in progress and should shed further light on this question. ▲