



Early Intervention for Diabetes-Related Renal Disease: Don't Let Rising Creatinine Block the Way

As an endocrinologist, I see a large number of patients with type 1 or type 2 diabetes. One of the most common complications I see in these patients is deterioration of renal function.

The benefits of renin-angiotensin system (RAS) blockade in patients with decreased renal function have been well established. The two major classes of RAS blocking agents—angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs)—have been shown definitively to slow the progression of established renal disease.¹⁻⁴ And while the current data supporting the use of the recently introduced direct renin inhibitors (DRIs), as well as the aldosterone blockers (which are considered by some to be another class of RAS blocking agents), are less clear cut, they are nonetheless quite encouraging.

Yet these medications are woefully underused in patients with established renal disease—precisely the ones who need the therapy most. What could account for this situation, in which a universally acknowledged therapy is shunned by a sizable portion of the practice community?

The answer is that many providers are “spooked” by the initial rise in the serum creatinine (SCr) level that occurs in a significant number of patients with renal insufficiency who start taking RAS blockers. This phenomenon has been studied extensively, however, and a number of experts have advised providers not to be overly concerned unless the SCr level increases by more than 35% to 40% or continues to rise beyond the drug initiation phase.^{5,6} In fact, the rise in SCr actually results

from one of the beneficial effects of RAS blockade—the easing of elevated efferent (past the glomerulus) arterial pressure. With this reduction in filtration pressure, less creatinine is filtered out and serum levels rise. It's critical to remember that, in most cases, this is a one-time increase that occurs with RAS blocker initiation and the RAS blocker will, in the long run, help retard the rate of rising SCr levels.

As the U.S. population ages and diabetes rates continue to skyrocket, renal disease is becoming ever more prevalent. Yet providers too often are neglecting this devastating condition until it reaches a level of severity that cannot be ignored. It's time for all providers to get on board with the idea of early rather than late intervention. And there is no better way to slow the rate of progressive renal insufficiency than with effective RAS blockage. My plaintive plea, therefore, is that we stop finding reasons to shy away from the therapy and start looking for appropriate times to use it. ●

Author disclosures

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adverse effects—before administering pharmacologic therapy to patients.

REFERENCES

1. Bakris GL, Weir MR. Angiotensin converting enzyme inhibitor-associated elevations in serum creatinine: Is this a cause for concern? *Arch Intern Med.* 2000;160(5):685-693.
2. Lewis EJ, Hunsicker LG, Clarke WR, et al; Collaborative Study Group. Renoprotective effect of the angiotensin-receptor antagonist irbesartan in patients with nephropathy due to type 2 diabetes. *N Engl J Med.* 2001;345(12):851-860.
3. Brenner BM, Cooper ME, de Zeeuw D, et al; for RENAAL Study Investigators. Effects of losartan on renal and cardiovascular outcomes in patients with type 2 diabetes and nephropathy. *N Engl J Med.* 2001;345(12):861-869.
4. Parving HH, Lehnert H, Bröchner-Mortensen J, Gomis R, Andersen S, Arner P; for Irbesartan in Patients with Type 2 Diabetes and Microalbuminuria Study Group. The effect of irbesartan on the development of diabetic nephropathy in patients with type 2 diabetes. *N Engl J Med.* 2001;345(12):870-878.
5. Lewis EJ, Hunsicker LG, Bain RP, Rohde RD; for Collaborative Study Group. The effect of angiotensin-converting-enzyme inhibition on diabetic nephropathy. *N Engl J Med.* 1993;329(20):1456-1462.
6. Palmer BF. Renal dysfunction complicating the treatment of hypertension. *N Engl J Med.* 2002; 347(16):1256-1261.