Vasoreactivity Testing a Must in Idiopathic PAH

Oral calcium channel blockers have no place in this testing, warns an ACC/AHA consensus statement.

BY BRUCE JANCIN

SAN DIEGO — Only 1 in 20 individuals with idiopathic pulmonary arterial hypertension can be successfully managed long term with oral calcium channel blockers, but even a slim chance of using this simple, inexpensive therapy is so attractive that acute vasoreactivity testing to identify suitable candidates is warranted in all patients with the disorder.

The best agent to use for this testing, which is done during right heart catheterization, is inhaled nitric oxide, Dr. Lewis J. Rubin said at the annual meeting of the American College of Chest Physicians.

"It's very potent, it's short acting, it's a very good identifier of patients who have vasoreactivity—and when you see it, there's no question about it. Within a few breaths of nitric oxide in a responder, you will see the pulmonary artery pressure come down. It's not subtle at all," said Dr. Rubin, professor of pulmonary and critical care medicine at the University of California, San Diego.

Roughly 10% of patients with idiopathic pulmonary arterial hypertension (IPAH) will demonstrate a dominant vasoreactive response on testing and therefore are suitable for a therapeutic trial using an oral calcium channel blocker. Earlier studies had put that figure as high as 20%-25%.

IPAH is a highly complex, rapidly evolving condition to manage. 'We serve as a resource for you.'

DR. RUBIN

Alternatives to inhaled nitric oxide for acute vasoreactivity testing are intravenous epoprostenol (Flolan) and intravenous adenosine.

Calcium channel blockers should never be used for the testing, a point that was emphasized in the latest American College of Cardiology/American Heart Association expert consensus document on pulmonary hypertension, coauthored by Dr. Rubin (J. Am. Coll. Cardiol. 2009;53:1573-619).

"They're nontitratable and nonselective, and it's exceedingly dangerous. So you either test for vasoreactivity with something that's available and safe, or you don't do it and you let somebody who does this for a living do it for you," Dr. Rubin said.

Only a tiny percentage of patients with PAH that is associated with connective tissue disease, portal hypertension, HIV infection, or other nonidiopathic forms of PAH have pulmonary vasoconstriction as the dominant cause of their pulmonary hypertension and are thus candidates for calcium channel blocker therapy.

"Some people say there's no use in testing for acute vasoreactivity in anything other than IPAH. But if you're set up to do it and you can do it relatively efficiently, safely, and quickly, I think it's worth doing for all patients with PAH," the physician continued.

Dr. Rubin made a plea for physicians in the community to have no hesitation in referring their patients with PAH to experts at centers of excellence. "This is a highly complex and rapidly evolving condition in terms of management. As treatments have diffused into the community, I think there are concerns about delays in referring patients for more complex management. This is a shared responsibility. We can't see these patients as frequently as you can because they often come from a distance. We serve as a resource for you. We need to see these patients at intervals," he said. ■

Disclosures: *Dr. Rubin disclosed that he is a consultant and/or on the speakers bureaus for Gilead Sciences Inc., Actelion Pharmaceuticals Ltd., Pfizer Inc., United Therapeutics Corp., Aires Pharmaceuticals Inc., Solvay Pharmaceuticals Inc., and other pharmaceutical companies.*