First Inhaled Treatment Approved for PAH

BY MARK S. LESNEY
Associate Editor

The Food and Drug administration approved the first inhaled therapy for pulmonary arterial hypertension in December.

Iloprost, a stable synthetic analogue of prostacyclin, causes selective pulmonary vasodilation, improving exercise capacity and hemodynamics in patients with PAH.

The drug is a strong vasodilator and inhibitor of platelet aggregation. The inhalation formulation (Ventavis Inhalant Solution) was developed to replace continuous infusion prostacyclin, which was the first therapy shown to reduce mortality in a controlled study of patients with severe pulmonary hypertension. The randomized clinical trial leading to approval enrolled 203 adult patients with PAH; 101 received inhaled iloprost, and 102 received placebo. The response rate in the iloprost group (6-9 inhalations per day) was 19% vs. 4% for the placebo group. The rate was determined using a primary composite end point that incorporated improvement in exercise capacity, improvement in at least one New York Heart Association PAH class, and no death or deterioration. Adverse responses with iloprost included flushing, cough, jaw pain, and headache.

Iloprost comes in single-use glass ampules (2 mL) containing 20 mcg iloprost for inhalation via the Prodose Adaptive Aerosol Delivery system. Iloprost should not be inhaled more than once every 2 hours and is not effective in sleeping patients. Vital signs should be monitored when starting iloprost because of the risk of syncope.

Iloprost, not yet commercially available in the United States, will be marketed by CoTherix Inc. as the Ventavis Inhalant Solution under exclusive contract with Schering AG, the drug's marketer in Europe and Australia. CoTherix had previously received orphan drug designation for iloprost from the FDA, in August 2004. ■