Aerosolized Iloprost Improves Pulmonary Hypertension

Prostacyclin, as a continuous infusion, was the first therapeutic agent to reduce mortality in patients with severe pulmonary hypertension. But the victory came with some serious drawbacks, such as systemic side effects, possible recurrent infections, and progressive dose increases resulting from tolerance.

Iloprost, a stable analogue of prostacyclin, may be more promising. When administered in aerosol form, its pulmonary vasodilative potency is similar to that of prostacyclin, but its effects last longer (30 to 90 minutes, compared with 15 minutes for prostacyclin). Studies indicate that long-term use of aerosolized iloprost results in substantial clinical improvement.

A multicenter group of researchers also noted similar results in their study of 203 patients with severe pulmonary arterial hypertension and chronic thromboembolic pulmonary hypertension. Patients were randomly assigned to receive 2.5 or 5.0 µg of iloprost six to nine times a day or a placebo. Of the patients in the iloprost group, 16.8% met the combined clinical endpoint (improvements in distance walked, New York Heart Association class, and clinical deterioration) in contrast to 4.9% of patients given placebo. Nearly 40% of the patients taking iloprost increased their six-minute walking distance by at least 10%. Hemodynamic values were significantly improved at 12 weeks in the iloprost group and significantly worse in the placebo group. One patient in the iloprost group and four patients in the placebo group died.

Fewer patients dropped out of the iloprost group despite lack of efficacy in some cases. The reason, the researchers believe, is that the drug therapy might be stabilizing the clinical condition even when it does not produce substantial improvement.


Fast-Tracking Patients with Atrial Fibrillation Safely

An accelerated approach to managing patients with atrial fibrillation may lead to safe and shorter hospital stays at lower cost. In a pilot study by researchers from Evanston (IL) Northwestern Healthcare and the University of Michigan, 18 patients with newly diagnosed or new-onset uncomplicated atrial fibrillation were managed either with traditional care (routine hospital admission with strategy guided by transesophageal echocardiography) or with admission to an emergency department–based clinical pathway with low-molecular-weight heparin (dalteparin [Fragmin®, Pharmacia and Upjohn]) and early cardioversion to sinus rhythm.

In the clinical pathway group, dalteparin was continued in low-risk patients who underwent cardioversion until therapeutic warfarin levels were achieved.

All nine patients in the traditional group were admitted to the hospital, with a mean length of stay of two days (range, one to eight days). By contrast, all patients in the clinical pathway group were in the hospital for less than one day. Median time to chemical or electrical cardioversion and normal sinus rhythm were significantly shorter in the pathway group. Median costs were $1,112 in the traditional group and $984 (40% of the cost going for dalteparin) in the pathway group.

No atrial fibrillation-related complications occurred throughout the hospital stay or after a mean follow-up of 27 days. No patients had a stroke or experienced thromboembolic events, bleeding, or complications from cardioversion procedures, and no patients died. One patient in the pathway group was lost to follow-up, and one in each group had atrial fibrillation at the time of clinic follow-up.

The clinical pathway still allowed time for evaluation of cardiac enzymes and for conversion to sinus rhythm. The frequency of medical evaluations was similar in both patient groups. Cardioversions were more frequent in the pathway group because of the accelerated time frame; some patients might have undergone spontaneous conversion if given more time. The researchers add, however, that faster conversion to sinus rhythm might have additional benefits, such as the enhanced probability of maintaining sinus rhythm after cardioversion.


DRUG NEWS
Asthma Undertreated in Older Women

Older women with severe asthma may be at greatest risk for undertreatment, say researchers who assessed adherence to the National Asthma Education and Prevention Program medication guidelines among participants in the Nurses’ Health Study. Of the 5,107 women who reported physician-diagnosed asthma, only 57% with mild asthma, 55% with moderate asthma, and 32% with severe asthma were taking medications as advised by the guidelines.

The figures somewhat baffling, especially considering that the women in the study were health care providers themselves. Psychosocial factors (e.g., marital status, social isolation), lack of insurance, and other possible influences could not completely account for the lack of adherence or the age gradient. Although the investigators had anticipated that low adherence among women with severe asthma would be a result of reluctance to use systemic corticosteroids, they found, in fact, that both those drugs and long-acting bronchodilators were underused.

The greatest increase in asthma-related mortality today is among older women. The researchers urge health care providers to make greater efforts to evaluate asthma severity and to step up therapy when indicated.


NEW DRUGS

Atrial Fibrillation Safely

Faster conversion to sinus rhythm might enhance probability of maintaining sinus rhythm after cardioversion.