COPD Literature Focuses on Spirometry, Smoking

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CHICAGO — Recent studies are starting to suggest that identifying chronic obstructive pulmonary disease by spirometry and telling patients of the diagnosis might increase the likelihood of smoking cessation, Dr. Sidney S. Braman said.

A prospective, randomized study of 410 Swedish smokers that combined annual spirometry, brief smoking cessation advice from a nurse, and a letter from the physician to those patients who had COPD showed that smokers given a diagnosis of COPD stopped smoking significantly more often than did those with normal lung function. The 6-month, 1-year, and 3-year cessation rates were 29%, 28%, and 25%, respectively, among patients who were told they had COPD, compared with 5%, 6%, and 9% in those patients without COPD (Scand. J. Prim. Health Care 2006;24:133-9).

The study was highlighted by Dr. Braman as one of the top recent COPD articles during the annual meeting of the American College of Chest Physicians.

The research adds fuel to the controversy over routine use of spirometry for case finding in adults with exposure to risk factors such as cigarette smoking, or for those with persistent respiratory symptoms. This controversy exists, in part, because no randomized clinical trial has previously demonstrated that early detection of COPD changes the course of disease or increases the rate of smoking cessation, said Dr. Braman, professor of medicine at Brown University, Providence, R.I.

In 2005, the task force of the Agency for Healthcare Research and Quality conducted a systematic review of the evidence and concluded that it did not justify recommending spirometry as a routine tool in the practice of primary care.

The Swedish study may be limited to patients with mild COPD, because 85% of participants with COPD had mild disease. But he also cited a Polish study of 4,494 current smokers with a history of at least 10 pack-years of smoking that showed an improvement in validated smoking cessation rates of 16.3% in patients who were told they had COPD compared with 12% in those with normal spirometry (Thorax 2006;61:869-73).

In a study of 123 consecutive patients admitted to the emergency department with a COPD exacerbation, the diagnosis of pulmonary embolism (PE) using a standardized diagnostic algorithm was 6% in the 48 patients who had a clinical suspicion of PE by the ED physician and only 1.3% in the remaining 75 patients not suspected (Thorax 2007;62:121-5).

"This study showed that the prevalence of suspected pulmonary embolism in patients presenting with a COPD exacerbation is very low, and that routine investigation for PE in this group is not warranted," Dr. Braman said.

However, Dr. Braman cautioned that a high clinical suspicion for PE should be maintained when there is no suspicion of infection in patients with a COPD exacerbation, especially those who require hospitalization. In a French study, PE was reported in 49 of 197 patients (25%) admitted to the hospital for a severe COPD exacerbation of unknown origin (Ann. Intern. Med. 2006;144:390-6).

The widely reported Towards a Revolution in COPD Health (TORCH) trial made the list (N. Engl. J. Med. 2007;356:775-89). In many people's minds, this randomized, double-blind trial of 6,112 patients with COPD was a negative study, because mortality rates for salmeterol or fluticasone propionate monotherapies did not differ significantly from placebo. However, a review of the secondary end points is encouraging.

Compared with placebo, combination therapy with salmeterol 50 mcg plus fluticasone 500 mcg twice daily significantly reduced the annual rate of exacerbations from 1.13 to 0.85 and significantly improved health status and spirometric values.

Rounding out the list was a large cohort study of 1,302 individuals with airway obstruction that indicates serum C-reactive protein is a strong and independent predictor of future COPD hospitalization and death (Am. J. Respir. Crit. Care Med. 2007;175:250-5), and a study of 176 consecutive patients with various pulmonary diseases that suggests circulating brain natriuretic peptide levels can be used as a prognostic marker and screening tool for significant pulmonary hypertension in chronic lung disease (Am. J. Respir. Crit. Care Med. 2006;173:744-50). ■