Surgery Boosts Lung Function in Cystic Fibrosis

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ORLANDO — Laparoscopic Nissen fundoplication was able to maintain or improve pulmonary function in 14 children with severe gastroesophageal reflux disease and cystic fibrosis, Dr. Sean J. Barnett and his associates reported in a poster at the annual meeting of the American Pediatric Surgical Association.

Children with cystic fibrosis usually have an average 1% per year drop in their pulmonary function. The new findings, based on a single-center review, showed that laparoscopic Nissen fundoplication not only was safe but also stabilized pulmonary function in these children.

The study retrospectively reviewed all 75 children who underwent the procedure for severe gastroesophageal reflux disease at the University of Minnesota in Minneapolis during February 2002–October 2006. The group included 14 children with a definitive diagnosis of cystic fibrosis based on a sweat chloride test. Their reflux disease was documented by esophageal pH testing. The average age of the 14 patients (six girls and eight boys) was 10.7 years, with ages ranging from 5 to 16 years.

The surgery was done on an elective basis in all 14 patients. The average follow-up was 48 months, and 11 of the patients had follow-up of more than 1 year; 3 patients had follow-up of more than 4 years.

Pulmonary function was assessed preoperatively and then at 1 month and at 1, 2, 3, and 4 years after surgery. Pulmonary function was measured for forced vital capacity (FVC), forced expiratory volume in 1 second (FEV_1), and as the ratio of FEV_1:FVC. The 14 patients showed a significant rise in their average FVC and FEV_1, reported Dr. Barnett, who is now a pediatric surgeon at Cincinnati Children's Hospital. The FEV_1:FVC ratio also showed an increase over time, but the rise was not statistically significant. ■

Drug Combo Can Cut Asthmatics' Use of Resources

SAN FRANCISCO — Patients with moderate to severe asthma experience fewer exacerbations and use adjunctive and rescue medications for shorter periods when taking combined budesonide and formoterol, compared with those taking budesonide alone, according to a poster presentation at the International Conference of the American Thoracic Society.

These results contradict three previous meta-analyses that failed to find pronounced reductions in asthma exacerbations in patients taking both long-acting β-2 agonists and inhaled steroids, compared with those taking inhaled steroids alone, wrote Dr. Christopher D. O'Brien of AstraZeneca and his coauthors. AstraZeneca, which manufactures combination budesonide and formoterol under the brand name Symbicort, supported the study.

Included in the multicenter randomized study were 708 adolescent and adult patients (mean age 40 years) who had received a diagnosis of asthma and reported consistent daily use of inhaled corticosteroids for at least 4 weeks before screening.

After a 2-week run-in period on budesonide alone (320 mcg twice daily), patients were randomized to receive a higher dose of budesonide alone (640 mcg twice daily), a high dose of budesonide and formoterol (640 mcg/18 mcg twice daily), or a low-dose of budesonide and formoterol (320 mcg/9 mcg twice daily).

Patients on both combined regimens experienced significantly fewer asthma exacerbations over the following 52 weeks. Those on the higher dose of budesonide and formoterol had a 45% reduction in exacerbations, and those on the lower dose had a 41% reduction, compared with patients taking budesonide alone.

Patients on both combined regimens also needed oral corticosteroids for fewer total days than did patients taking budesonide alone, with decreases of 51% for the higher combined dose and 42% for the lower combined dose. Conversely, there were no differences in the groups on several other measures of resource use, such as the number of days of hospitalization because of asthma, the number of emergency department visits, and number of unscheduled visits to a specialist or primary care physician.

—Robert Finn