Conservative therapy for spontaneous pneumothorax seems noninferior
30 January 2020

(HealthDay)—Conservative management with initial observation may be noninferior to immediate interventional management for carefully selected patients with primary spontaneous pneumothorax, according to a study published in the Jan. 30 issue of the New England Journal of Medicine.

Simon G.A. Brown, Ph.D., from the University of Western Australia in Perth, and colleagues conducted an open-label noninferiority trial involving 316 patients with a first-known, unilateral, moderate-to-large primary spontaneous pneumothorax who were randomly assigned to either immediate interventional management or a conservative observational approach (154 and 162 patients, respectively).

Of the patients in the conservative-management group, 15.4 percent underwent interventions to manage the pneumothorax, while 84.6 percent did not undergo interventions. The researchers found that reexpansion of the lungs within eight weeks occurred in 98.5 percent of patients with interventional management and in 94.4 percent with conservative management (risk difference, 4.1 percent; 95 percent confidence interval, 8.6 to 0.5 percent; P = 0.002 for noninferiority). The lower boundary of the 95 percent confidence interval fell within the prespecified noninferiority margin (9 percentage points). In a sensitivity analysis in which all missing data were imputed as treatment failure, the risk difference was outside the prespecified noninferiority margin (93.5 percent in the intervention group versus 82.5 percent in the conservative-management group; risk difference, 11.0 percentage points; 95 percent confidence interval, 18.4 to 3.5).

"This randomized, controlled trial of conservative as compared with interventional management of moderate-to-large primary spontaneous pneumothorax provides modest, but statistically fragile, evidence that conservative management was noninferior to interventional management," the authors write.

One author disclosed financial ties to Rocket Medical and Becton Dickinson/CareFusion.

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