
Lung Volume Reduction Surgery Shown To Prolong And Improve Life For Some Emphysema Patients

"We found lung reduction surgery is good treatment alternative for selected emphysema patients since it not only improves survival but also meaningfully improves quality of life for a period of at least five years after the operation," said lead author of the study, Roberto Benzo, M.D., MSc. of the Mayo Clinic. "Patients who underwent LVRS, with the exception of those who had non-upper-lobe-predominant emphysema, had both a survival and quality of life benefit when compared to similar patients undergoing medical treatment only."

The results of the National Emphysema Treatment Trial (NETT) study were reported in the August 1 issue of the American Journal of Respiratory and Critical Care Medicine, published by the American Thoracic Society.

The NETT group recruited 1,218 patients with severe emphysema and randomised them to either undergo LVRS or non-surgical medical treatment, which generally consisted of customised use of medication, oxygen support, smoking cessation and pulmonary rehabilitation. LVRS consists of removing a portion of emphysematous lung tissue in the patient. While removing lung tissue in patients whose breathing is compromised may seem counterintuitive, severe emphysema causes "air trapping", where the patient can inhale, but is unable to force the air back out of the lung. This is one of the main causes of shortness of breath in patients with emphysema.

"By removing the section of lung that is primarily affected with severe emphysema, we can decrease air trapping and consequently the shortness of breath, which can thereby improve the patient's perceived quality of life," explained Dr. Benzo.

A total of 608 patients underwent LVRS and 610 received standard medical care. The patients were followed for five years or until they died. All endpoints except death were measured at six-month intervals. The primary outcome was a composite endpoint consisting of death or an "unquestionable and meaningful deterioration" in quality of life, defined as an 8-point or greater drop on the Saint George's Respiratory Questionnaire, a widely used standardised measure of quality of life in patients with respiratory disease.

In the total sample, the average time until a "composite event"

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