

Study shows modified technique further reduces lung surgery pain

June 6 2008

A simple variation in a surgical technique developed at the University of Alabama at Birmingham (UAB) to reduce acute and chronic pain following lung surgery further reduces pain and helps return patients to normal activity quicker than the previous technique, according to a study published in the June issue of the *Annals of Thoracic Surgery*.

Instead of crushing the intercostal muscle and nerve that lies between the ribs during rib spreading when performing a lung resection, UAB Chief of Thoracic Surgery Robert J. Cerfolio, M.D., teases the muscle and nerve away from the rib and then moves it out of the way before spreading the ribs. This leads to less trauma to the muscle and intercostal nerve and dramatically reduces post-operative pain.

This new technique is a further modification of a concept that Cerfolio and colleagues reported in 2005. As reported in that paper, the technique divided, then moved, the intercostal muscle and the nerve away from the rib spreader so it was not crushed. In this new modification, the muscle is no longer divided but is allowed to dangle under the rib spreader, further avoiding trauma to the nerve and muscle.

For the 160 patients participating in this study, those who received the modified muscle flap technique reported that pain was reduced both in the hospital and after surgery at weeks three, four, eight and 12. Those who received the modified muscle flap procedure had lower pain scores and required less pain medications than those who did not. They also were more likely to return to normal activities within eight to 12 weeks

after the surgery.

The study used sophisticated, objective measurements of pain, including multiple pain score surveys, and measurements of patients' pain medication usage.

The original idea for the Cerfolio technique was generated from an earlier study Cerfolio published in the *Annals of Thoracic Surgery* in 2004. "In the first study, we found a way to avoid injury to the intercostal nerve that lies below the sixth rib during closure by drilling holes in the ribs so the closure stitches would not entrap that nerve," Cerfolio said. "Then, I got the idea that maybe we could further reduce the pain by avoiding the intercostal nerve and muscle that lie above the sixth rib during opening and came up with the idea of harvesting the intercostal muscle flap prior to chest retraction. As surgeons, we are constantly looking for ways to improve techniques and reduce pain."

To date, a number of surgeons and other clinical staff from all over the world, including, Denmark, The Netherlands, Germany, France and Spain have recently come to UAB to observe Cerfolio perform lung surgery and learn this new technique. Cerfolio is recognized as one of the busiest thoracic surgeons in the world and performs more than 1,200 surgeries each year.

Source: University of Alabama at Birmingham

Citation: Study shows modified technique further reduces lung surgery pain (2008, June 6) retrieved 26 April 2024 from

<https://medicalxpress.com/news/2008-06-technique-lung-surgery-pain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.