Lung Cancer Patients Up and Walking Within Hour of Surgery
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SYDNEY — Early-stage lung cancer patients undergoing thoracic surgery usually stay in bed until the next morning, but a new study presented here at the 15th World Conference on Lung Cancer shows that early ambulation is feasible and safe.

Patients were set a target of walking 250 feet within an hour of extubation, and 77% (579 of 750 patients) managed to walk that distance, 60% of them within the hour.

This early ambulation shortens the hospital stay, reported lead investigator Sandeep Khandhar, MD, medical director of thoracic surgery at the Inova Fairfax Hospital in Falls Church, Virginia. It also appears to reduce pain and the need for narcotic analgesics, as well as the incidence of deep vein thrombosis (DVT), compared with what has been seen historically.

Most importantly, there were no adverse events from the ambulation and, he added, there was a zero rate of complications.

"This is really amazing," commented Hiroshi Date, MD, chair and professor of thoracic surgery at Kyoto University, Japan, who acted as discussant for the study. Even a healthy person takes some time to get going in the morning, but these were patients who had just undergone lung resection, and the majority were up and walking within an hour of the surgery finishing, he said. The usual care is for such patients to lie in bed until the next morning, he added. As far as he is aware, this is the first study to look at aggressive early mobilization of patients.

Asked by Medscape Medical News whether this is a good idea, Dr. Date said he "is not sure yet." It is encouraging that there were no adverse events, he said. However, this was not a randomized trial, and he said that he would like to see some data comparing outcomes for the patients who were ambulatory early with those who were not.

In the study, about 10% were unable to ambulate because of weakness or hypotension.

Initial Reluctance from Nursing Staff

The patients in this study had early-stage lung cancer and had undergone minimally invasive surgery, including video-assisted thoracic surgery, robotics, laparoscopy, and thoracotomy. The results were collected over a period of 3 years (July 2010 to 2013).

The idea behind the early ambulation was to return patients to their preoperative state as quickly as possible, Dr. Khandhar explained.

The goal of walking 250 feet within an hour of surgery was chosen rather arbitrarily, he added. It was initially met with skepticism and also significant reluctance from the nursing team because the extra time needed bedside nursing involved, he said. But once the study was underway, nurses became competitive and tried to outdo each other with how quickly they could get patients up and walking. "The record is 6 minutes," he said.

The early ambulation reduced the length of hospital stay, from around 3 to 5 days to an average of 1.6 days, Dr. Khandhar reported.

It also reduced the need for pain relief. "Ambulation inherently reduces pain as the upright position takes tension off the intercostal spaces," he explained. Only 20% of patients needed intravenous narcotics; the majority were managed with acetaminophen and nonsteroidal anti-inflammatory drugs.
In addition, it appears to reduce the risk for DVT, as the incident rates in this study population were about 10% lower than the national average, he said. "We did not use chemical thromboprophylaxis either during or after surgery," he added.

Dr. Khandhar told *Medscape Medical News* that further studies are planned, and there is a comparison underway of these patients who were mobilized early with patients who stayed in bed until the next morning and used chemical thromboprophylaxis. So far, the results suggest that the incidence of DVT is similar and may be lower in the early ambulatory group.

The key to success in this project was engaging the family and patient beforehand, as well as the nursing staff, and setting the expectations high, he said. Patients were told that they were expected to walk within the hour, and the majority of them managed to do so.


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