

심폐재활

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F)

질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

### **P 3-117**

#### **Case report : Decannulation in patient with video-assisted thoracic surgery, left upper lobectomy**

Yong Seob Jo<sup>1\*</sup>, Yun Jung Lee<sup>1†</sup>, Jung Hyun Cha<sup>1</sup>, Jun Young Ko<sup>1</sup>

Myongji Hospital, Department of Rehabilitation Medicine<sup>1</sup>

##### **Introduction**

Lung resection has various postoperative complications. Pulmonary complication is one of the most important among them. For patients with lung resection, tracheostomy is known as option of good treatment method to reduce the prevalence of pulmonary complications by aiding postoperative sputum clearance. In addition, the importance of pulmonary rehabilitation in terms of postoperative care is gradually emerging. In particular, pulmonary rehabilitation programs are necessary to reduce airway secretion and enhance postoperative lung capacity. This case is the successful decannulation of the tracheostomy tube through pulmonary rehabilitation program in patients with video-assisted thoracic surgery(VATS), left upper lobectomy.

##### **Case presentation**

On April 26, 2018, A patient with a history of chronic obstructive pulmonary disease was diagnosed as a lung cancer and performed left upper lobectomy the following day. On May 3, 2018, the patient had acute respiratory failure, septic shock, pneumothorax during postoperative care, and subsequently tracheostomy was performed on May 10, 2018. In October 18, 2018, the patient was admitted to our hospital for pulmonary rehabilitation. Patient's respiratory assessments including chest x-ray were conducted at the time of the hospitalization. (Figure 1) The assisted peak cough flow was measured at 120 and it was difficult to expectorate sputum on its own. In addition, FVC 39%, FEV1 38% were measured and the results reflected decreased lung function. (Figure 2) We consulted otorhinolaryngology and started corking training after confirming that there was no finding of causing obstruction of the upper airway including vocal cord palsy. After these evaluations, the patient did treadmill exercise twice a day for 30 minutes, air stalking exercise using ambu bag three times a day, inspiratory muscle exercise and was educated about postural drainage, huff cough and breathing method such as pulsed lip breathing to facilitate airway secretion. After receiving these pulmonary rehabilitations, continuous improvement of peak cough flow (PCF) could be seen in patient. (Figure 3) In addition, the corking training continued with the pulmonary rehabilitation exercise, and the corking time was extended continuously to 24 hours. Decannulation was successfully performed on November 13, 2018 after three consecutive days of completing corking training.

## Conclusion

In general, Having tracheostomy tube can help patients with lung resection surgery with chronic respiratory failure in terms of post-operative lung care. However, the tracheostomy tube itself is main factor that degrades patient's quality of life (QOL), such as increasing sputum, pain and infection risk. Therefore, It is important to facilitate airway secretions through active pulmonary rehabilitation and if the PCF is improved through active pulmonary rehabilitation even for patients who performed lung resection, Decannulation will improve the patient's QOL.

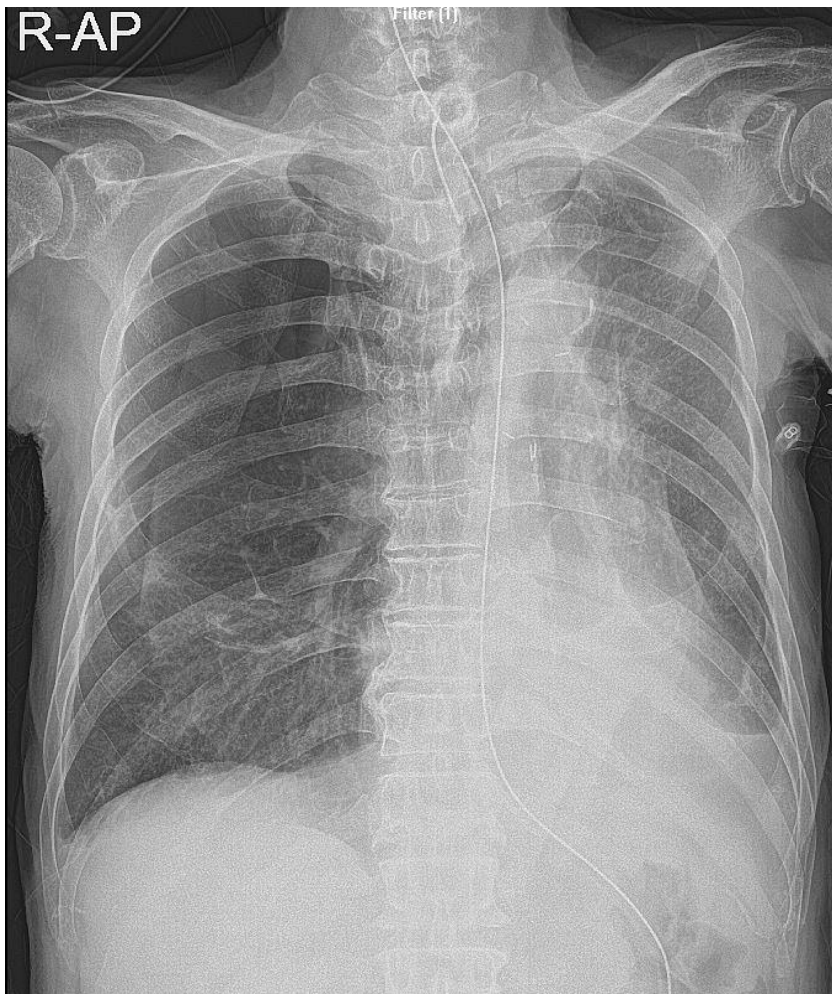


Figure 1. Initial chest x-ray at the time of hospitalization on 18, October, 2018.

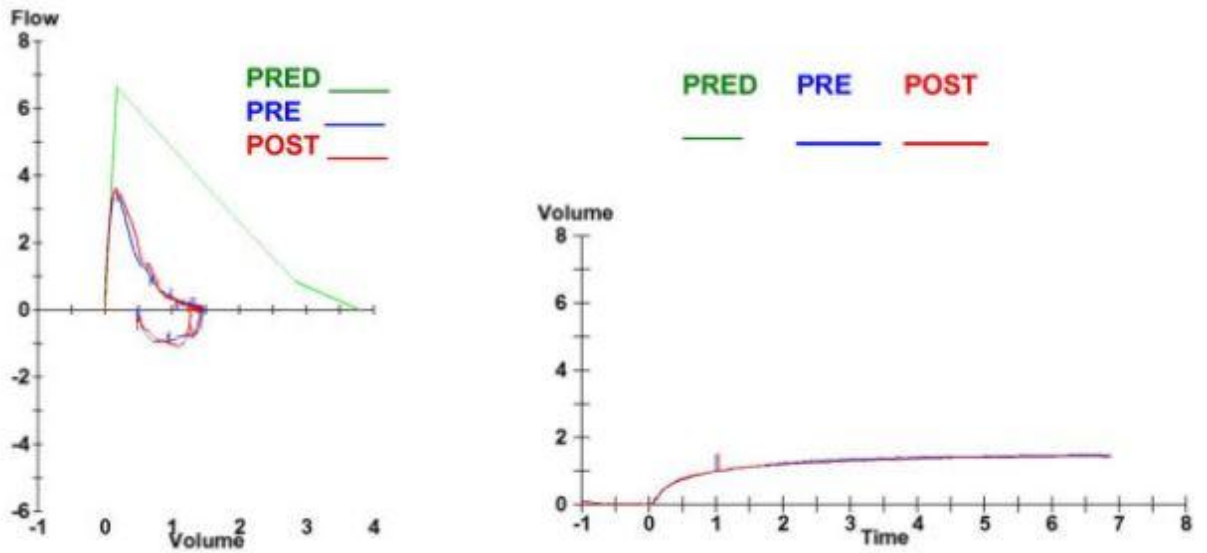


Figure 2. Pulmonary function test result at the time of hospitalization

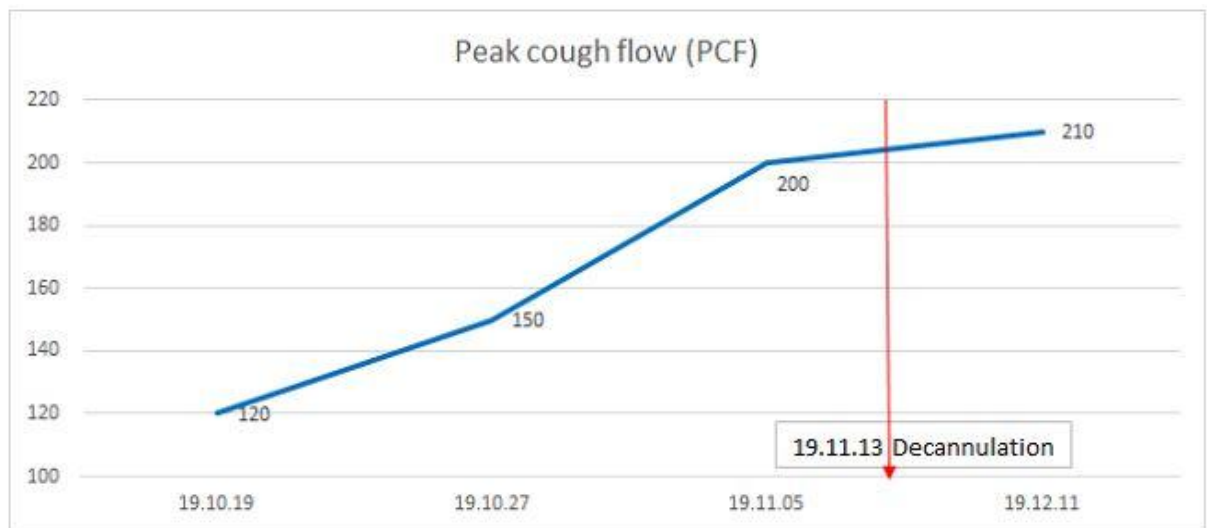


Figure 3. Continuous improvement of peak cough flow during hospitalization period