## AB010. The predicament and benefit of ipsilateral repeated pulmonary metastasectomy and sequential anatomic resection: a single-institution experience

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**Background:** Pulmonary metastasectomy has been considered an effective modality in selected patients to achieve longer life-span. When recurrence was encountered again and again in ipsilateral thorax, it is a real dilemma whether repeated wedge or anatomic resection can be done safely. Herein, we reported our surgical results and shared the experience in ipsilateral repeated pulmonary metastasectomy and sequential anatomic resection.

Methods: The medical records of 41 patients (65 procedures totally) who experienced ipsilateral repeated pulmonary metastasectomy between June 2009 and February 2013 were reviewed for sex, age, tumor histology, surgical method, operation time, blood loss, hospital stay, etc. Overall survival was analyzed as primary end-point. Post-surgical complication and mortality rate during hospitalization were also assessed as secondary end-point.

**Results:** There were a total of 65 repeated operations

in this study. The most common surgical indication was metastatic pulmonary tumors from colorectal cancer (65.9%), followed by lung cancer (17.1%). Among them, 8 had repeated ipsilateral anatomic resection, including 4 for completion lobectomy, 3 for anatomic resection of another lobe, and 1 for completion pneumonectomy. The average of operation time and blood loss was 271 minutes (range, 136-435 mins) and 525 mL (range, 200-1,500 mL) respectively. Although there was no 30-day mortality, four patients (50%) encountered persistent air leakage after repeated ipsilateral anatomic resection, leading to longer hospital stay (>10 days). In this study, the median survival in all patients and patients with colorectal cancer is 7.6 and 5.8 years, respectively. Five-year survival from 27 patients of colorectal cancer with repeated pulmonary metastasectomy was 53.8%.

Conclusions: Management of pulmonary metastases is troublesome and associated with higher complication rate. With careful manipulation during operation, repeated pulmonary metastasectomy and sequential anatomic resection is feasible and may offer survival benefit in selected patients.

**Keywords:** Pulmonary metastasectomy; repeated operation; survival; thoracoscopic

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