# **Physician - Coronary Artery Diseases and Surgery**

### [MSB-61]

# Open Heart Surgery in Patients with A Lung Mass: A Single-Center Experience

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**Objective:** This study aimed to share our experience with patients with heart disease requiring open heart surgery who also had a concomitant lung mass.

**Methods:** This retrospective study included 22 patients (20 males, 2 females; mean age: 63.6 years; range, 43 to 79 years) who required open heart surgery and had a detected lung mass during preoperative evaluation. All the patients were discussed between cardiac and thoracic surgery teams, and different approaches according to patient and mass characters were chosen. Thoracic computed tomography and positron emission tomography scans and, when needed, biopsies were used to determine mass characters.

**Results:** Seven patients were deemed to have small benign nodules, and it was decided not to intervene on the mass. A biopsy before surgery was performed in two patients, and an intervention was not deemed necessary in these patients. One patient was evaluated as having late-stage lung cancer, and no cardiac surgical intervention was performed. Ten patients underwent cardiac surgery and lung resections or lobectomies in a simultaneous operation. Two of the patients subsequently underwent a separate thoracic surgery after the cardiac surgery. There was no perioperative mortality or myocardial infarction.

**Conclusion:** Managing patients with both cardiac disease requiring surgery and a lung mass is complex and necessitates a multidisciplinary approach. The decision to perform combined surgery or staged procedures should be individualized based on patient-specific factors, the nature of the lung mass, and the urgency of the cardiac condition. While outcomes for combined procedures are generally favorable in well-selected patients, they require meticulous perioperative planning and long-term follow-up.

**Keywords:** Cardiac surgical procedures, lung neoplasms, thoracic surgery.

#### References

- 1. Liu B, Chen C, Gu C, Li Q, Liu J, Pu Y, et al. Combined Coronary Artery Bypass Graft (CABG) surgery and lung resection for lung cancer in patients more than 50 years-of-age. Med Sci Monit 2018;24:3307-14. doi: 10.12659/MSM.907545.
- 2. Cheng S, Jiang Y, Li X, Lu X, Zhang X, Sun D. Perioperative outcomes of combined heart surgery and lung tumor resection: A systematic review and meta-analysis. J Cardiothorac Surg 2021;16:227. doi: 10.1186/s13019-021-01607-7.
- 3. Tricard J, Milad D, Chermat A, Simard S, Lacasse Y, Dagenais F, et al. Staged management of cardiac disease and concomitant early lung cancer: A 20-year single-center experience. Eur J Cardiothorac Surg 2021;59:610-6. doi: 10.1093/ejcts/ezaa360.
- 4. Kaku R, Teramoto K, Ishida K, Igarashi T, Hashimoto M, Kitamura S, et al. Simultaneous resection of pulmonary tumor following cardiovascular surgery. Asian J Surg 2017;40:123-8. doi: 10.1016/j.asjsur.2015.04.003.