P2.15-07
Bimanual Examination Is Indispensable in the Surgery of Lung Metastatic Tumors!

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Background: Thoracic computed tomography (Th CT) is used to evaluate the surgical outcome of lung metastatic tumors. However, Th CT is often inadequate on the detection of millimetric lesions and it alone is a problematic for guiding complete resection. It is recommended for complete resection that the intraoperative bimanual palpation of the lung to be used with care and meticulously. In addition, there are studies for minimally invasive surgical methods may be an alternative to thoracotomy where bimanual evaluation is not possible. In this study, we aimed to evaluate the number of radiological and pathological metastases in patients who underwent metastasectomy with muscle conservative thoracotomy (MCT). **Method:** Between 2008 and 2018, 204 patients with metastatic lung tumors who underwent metastasectomy were included in the Department of Thoracic Surgery, Ankara University Faculty of Medicine. Preoperative Th CT imaging of all patients was evaluated in a multidisciplinary council. The relationship between the numbers of metastases detected by pathological examination of patients and the number of pulmonary nodules reported as 'metastasis' in preoperative Th CT was retrospectively analyzed. **Result:** 55% (n: 111) of the patients were F, 45% (n: 93) were M, mean age was 46.4 (13-77). % 25 (n:52) of two hundred and four patients had bilateral, 3% (n: 8) of the patients had 3 and 1% (n: 4) of the patients had 4 metastasectomy with MCT due to contralateral lung metastasis or re-metastasectomy. The number of pulmonary nodules detected in Th CT was 740 (mean: 2,6), although the number of pulmonary nodules resected was 1503 (mean: 5,29). In histopathological evaluation of these nodules, 1120 (mean: 3,94) were reported as metastases. 2,03 fold of the nodules detected in Th CT were detected by bimanual intraoperative examination and 1.5 fold of nodules detected in Th CT were pathologically assessed as metastasis. Primary tumor numbers and histologies of 1120 metastatic nodules respectively; 42% (n: 475) were epithelial tumors and 58% (n: 645) were mesenchymal tumors. **Conclusion:** In this study, 740 pulmonary nodules were reported in Th CT of 204 patients. However, 763 additional pulmonary nodules were detected by bimanual palpation. 49.8% (380/763) of 763 additional pulmonary nodules were metastatic. Although minimally invasive surgery is a successful method for the surgery of many thoracic malignancies, bimanuel palpation of the lung with open surgery is still an effective method for the complete resection of pulmonary metastases. Bimanual examination is indispensable especially in the pulmonary metastasectomy of sarcomas. **Keywords:** lung metastasectomy, lung metastasis count, minimally invasive surgery

P2.15-08
Multicenter Experience with Complete Surgical Resection of Primary Pulmonary Artery Sarcoma

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Background: Pulmonary artery sarcoma is a rare and aggressive malignancy and survival is extremely limited without surgical resection. Treatment options for surgical resection are not standardized. We sought to examine our series of complete resections and clinical outcomes over an 18 year experience. **Method:** From 1999 to 2017, we evaluated 17 patients (mean age 56 ± 12. 9 years) with pulmonary artery sarcoma across three institutions. Fourteen (82.7%) underwent complete surgical resection. **Result:** All 14 patients underwent complete resection of the pulmonary artery sarcoma. Six patients (42.9%) had previously undergone surgical resection and were referred for recurrent disease. Seven patients (50%) underwent neoadjuvant chemotherapy or radiation. Reconstruction of the pulmonary artery trunk was performed with a pulmonary artery allograft, and reconstruction of the right or left main pulmonary artery was performed with a Dacron interposition graft. Additional endarterectomy was performed in two patients with disease extending into the PA branches. Lung resection was performed in five patients (35.8%). Total length of stay was 9.7 ± 4.6 days including 5.3 ± 4.2 days in the ICU. Mean survival was 2 ± 2.8 years. Tumor histology is summarized in table 1.

Pulmonary artery sarcomas	N=17
Male gender	14 (82.65%)
Age at operation (mean ± SD)	56 ± 12.9
Operative	14/17 (82.4%)
Pre-op chemo only	4/14 (23.5%)
Pre-op XRT only	1/14 (5.9%)
Chemo & XRT	2/14 (11.8%)
Recurrent Disease	6/14 (42.9%)
Lung Resection/Pneumonectomy	5/12
ICU Length of stay (mean ± SD)	5.3 ± 4.2
Total length of stay (mean ± SD)	9.7 ± 4.6
Years alive from surgery (mean ± SD)	2 ± 2.8
Histology/Pathology	Cases (n)
High Grade Sarcoma	n= 5
High Grade Angiosarcoma	n= 2
Leiomyosarcoma	n= 2
High Grade Intimal Sarcoma	n= 2
High Grade Spindle Cell Sarcoma	n= 1
Pleomorphic Sarcoma	n= 1
Undifferentiated Sarcoma	n= 1

Conclusion: Surgical resection of pulmonary artery sarcomas offers improved long-term outcomes compared to non-surgical management. Complete resection and reconstruction is preferred compared to endarterectomy. Prompt and accurate diagnosis is important for optimal management. **Keywords:** Cardiothoracic surgery, Cardiac tumor, Pulmonary artery sarcoma

P2.15-09
Clinical Features and Prognosis of Primary Tracheal Cancer at Our Institution's Experience

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Background: Primary tracheal cancer (PTC) is rare. Although histological components of the trachea are similar to that of the lung, the reason for its low incidence is still unknown. Because of its rarity, there are no standard treatment strategies. **Method:** PTC is not clearly defined. We defined it as a primary malignant neoplasm arising from the sub vocal cord region to the bilateral main bronchi via the bifurcation. The clinical features and prognosis of patients with PTC from 1999 to 2018 at the Kanagawa Cardiovascular and Respiratory Center were analyzed. **Result:** A total of nine cases, 4