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Lung cancer is a leading cause of death in both sexes [1]. Surgery has been accepted as the curative treatment in early-stage (Stage 1-2) non-small cell lung cancer (NSCLC); however, almost 70% of patients are diagnosed at locally advanced stages or after metastasis has occurred [2]. According to the 8th edition of the TNM Classification of Malignant Tumors, superior sulcus tumors with the involvement of phrenic nerve invasion and parietal pericardial invasion are classified as T3 tumors, and tumors with invasion of the diaphragm, mediastinum, great vessels, trachea, carina, recurrent laryngeal nerve, esophagus, and vertebral body are classified as T4 tumors [3]. Both T3 and T4 tumors have a highly heterogeneous nature. However, the effectiveness of surgery in these tumors remains controversial.

The term ‘extended lung resection’ was first proposed by Chamberlain in 1959 [4] and is defined as complete resection of lung parenchyma together with an adjacent organ or structure invaded by the tumor in locally advanced lung cancers. The most important prognostic factors for the surgical treatment of locally advanced lung cancers include lymph node involvement, R0 resection, and the requirement of pneumonectomy. It has also been shown that multimodal treatment of locally advanced lung cancers in selected patients offers an obvious major advantage in terms of survival and is the best option in terms

of curative treatment [5,6]. Accordingly, when selecting patients for surgery, an extensive evaluation including the investigation of lymph node involvement, suitability of the patients for complete resection, and the requirement of additional treatment modalities should be performed in addition to a general evaluation.

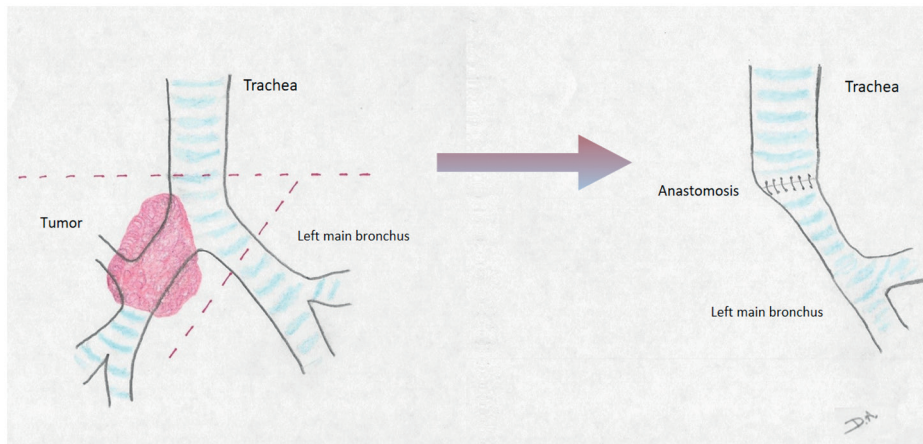
### RESECTION OF CHEST WALL INVASION

Chest wall invasion, according to the 8th edition of the TNM Classification of Malignant Tumors, occurs in T3 tumors. In tumors with chest wall invasion, the involvement of lymph nodes is a poor prognostic factor, as in other tumors. Superior sulcus tumors are also classified as T3 tumors. Chest wall invasion in lung cancer is defined as tumor extension beyond the elastic layer of the visceral pleura, along with invasion of the intercostal muscles and ribs. Chest wall invasion was previously considered as a criterion of inoperability; however, resection of chest wall invasion has been commonly practiced ever since it was shown to increase survival and to have acceptable morbidity and mortality rates by Coleman in 1947 [7].

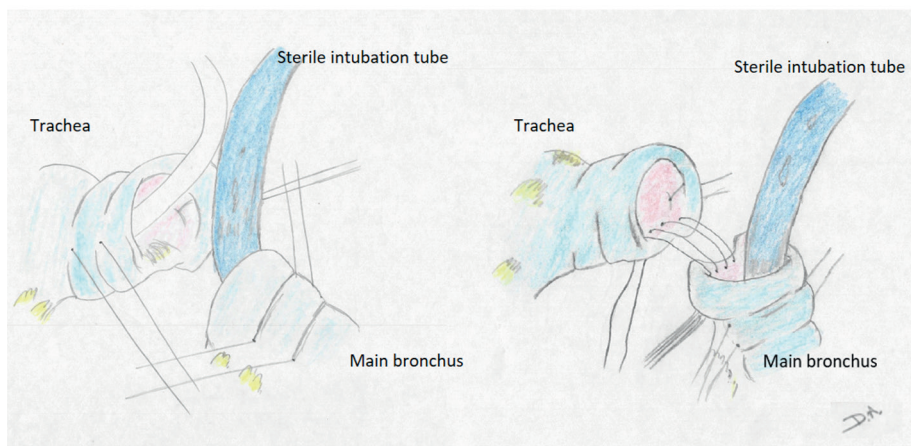
Chest wall invasion mostly presents with chest pain and can also be asymptomatic. In particular, the presence of pain in the lesion site is a leading

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**Figure 8:** Resection of carina invaded by the tumor and trachea anastomosis to the left main bronchus



**Figure 9:** Intraoperative anastomosis technique and ventilation of the remaining lung via a sterile intubation tube

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