THE DIAGNOSIS AND SURGICAL TREATMENT OF ADVANCED BRONCHOGENIC CARCINOMA

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In our days, lung cancer represents the most common neoplasia and the main cause of death by cancer in the world. Active smoking is by far the most important causative agent in the development of lung cancer, accounting for more than 90% of lung cancer cases. Whereas the incidence in men is decreasing (this situation is not valid in Romania), the incidence in women has increased progressively since 1980 and has stabilized in the last years. Based on histological features and biological behaviour, lung cancer is divided in: small cell lung cancer (SCLC) and nonsmall cell lung cancer (NSCLC). NSCLC represents 85% of all primary lung tumors.

Complete surgical resection remains the greatest potential curative therapy for patients with non-small cell lung cancer (NSCLC), but of the American Cancer Society’s 2004 estimate of 173,700 cases of newly diagnosed bronchogenic carcinoma, complete resection could only be performed in about 20% of patients, which presumably influenced the 160,440 death from this neoplasia expected that year and the 5-year survival rate of about 15%. If patients do not receive any specific treatment, median survival is 9 month and maximum survival is 3 years.

After discussing the modern approach on diagnosis, staging and treatment in the first (general) part of the thesis, in the second part (personal contributions):
- we have made a statistical analysis of 658 cases with advanced lung cancer which underwent surgery (curative or palliative) in Surgical Clinic IV UMPh Targu-Mures between January 1985 and April 2007 (Chapter I),
- we have underlined the value of lobar pulmonary resection with en-bloc artery-bronchus stapling in the treatment of advanced lung cancer (Chapter II),
- we have done a pathologic study of pleura in malignant pleural effusions (Chapter III),
- we have presented the experience of Surgical Clinic IV in treating rare primary malignant tumors (Chapter IV),
- and finally we have underlined the importance of surgery in pulmonary metastases of the extrapulmonary tumors (Chapter V).

The main conclusions of our studies were:

- The two main goals of surgery in bronchogenic carcinoma are achievement of complete resection and preservation of optimal functional lung capacity, but in many cases with inoperable locally advanced disease or metastatic
disease surgery is still justified by life comfort and, in some cases, by unexpected postoperative survival.

- Exploratory thoracotomy cannot always be avoided and it represents a very important tool in diagnosis and palliative treatment of inoperable lung cancer.
- When used carefully, in certain well selected patients with locally advanced lung cancer in whom the „classic” lobectomy is technically impossible, the lobectomy with en-bloc artery-bronchus stapling is a valuable surgical option.
- Lung cancer remains the most frequent neoplastic disease which involves parietal pleura.
- Pleural effusion is not always related with pleural metastases and it seems to be correlated especially with chronic inflammation and lymphatic obstruction.
- In the large majority of rare primary malignant pulmonary tumors it is very difficult to establish a correct preoperative diagnosis (to differentiate them from bronchogenic carcinoma).
- Because of this reason in all the cases, these tumors are operated using the same criteria as for lung cancer.
- In some cases with pulmonary metastases of extrapulmonary tumors surgery is still the most important therapeutic option with spectacular survival in many patients depending on histological features of the primary tumor.