

“Historic” Surgical Procedures – Up To Date Indications In Difficult TB Cases

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Introduction

The role of the thoracic surgeon in managing pulmonary tuberculosis has decreased remarkably since the advent of effective antimicrobial agents.

Patients with lungs destroyed by MDR TB or cavitary disease, with or without positive sputum smears, will require resection; this is currently the most frequent indication for surgery.

Materials and Method

- Wide experience of Marius Nasta Surgery Clinic regarding patients suffering from pulmonary tuberculosis
- Historical facts
- Literature review
- Multiple surgical techniques for patients who can't withstand pulmonary resection; Simple or complex pulmonary resections for patients with less severe ventilatory dysfunctions

General factors

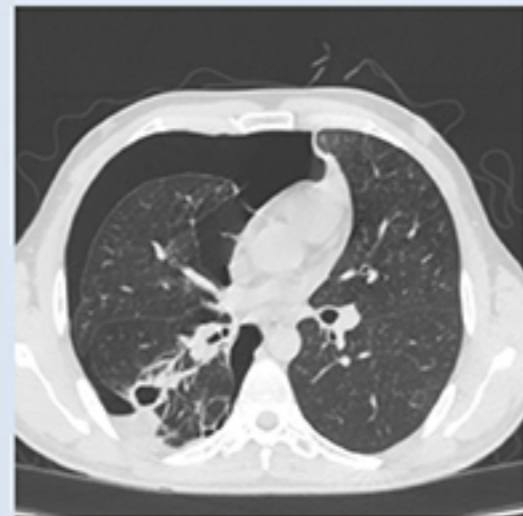
Patients infected with MDR germs from the beginning
Alteration of immune response
Chronic fatigue, alcohol abuse, HIV infection
Advanced age
Poor adherence to treatment (~ 6% of newly discovered cases are lost to follow up).

Induced Pneumothorax

Introduced by **Carlo Forlanini in 1882**
Technique **rarely** used today

Indications:

- multiple TB lesions in apical segments
- young patients
- MDR TB
- patients unfit for other surgical maneuvers
- absence of pleural adhesions



Lucite Ball Plombage

Notion introduced by **Tuffier in 1891**

When

Bilateral lesions are present
Lung lesions are overlapping more than 7 ribs
Lesions are present in both Upper lobe and Lower lobe

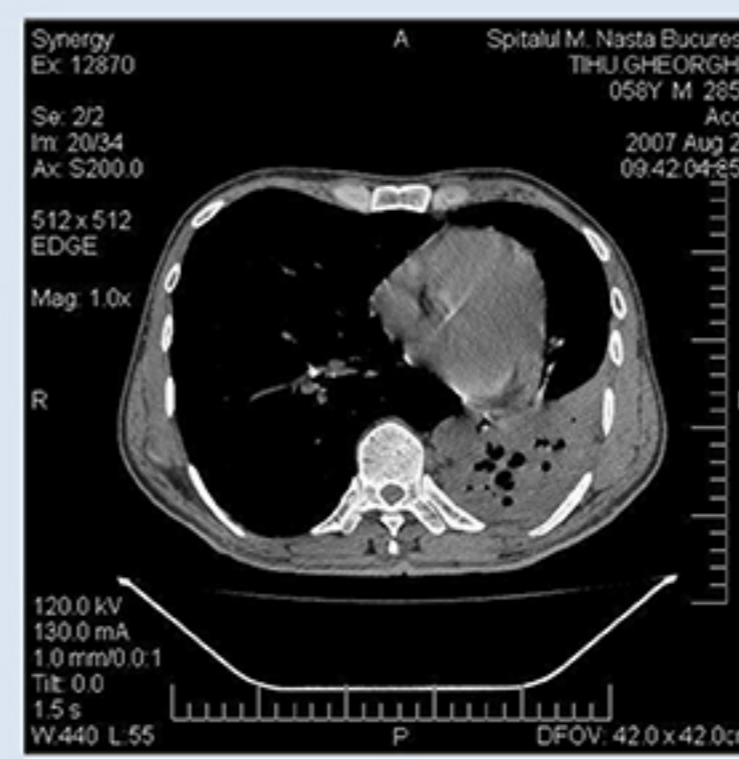
The patient is not fit for with poor general status or lung resections



2-Step-Pneumonectomy

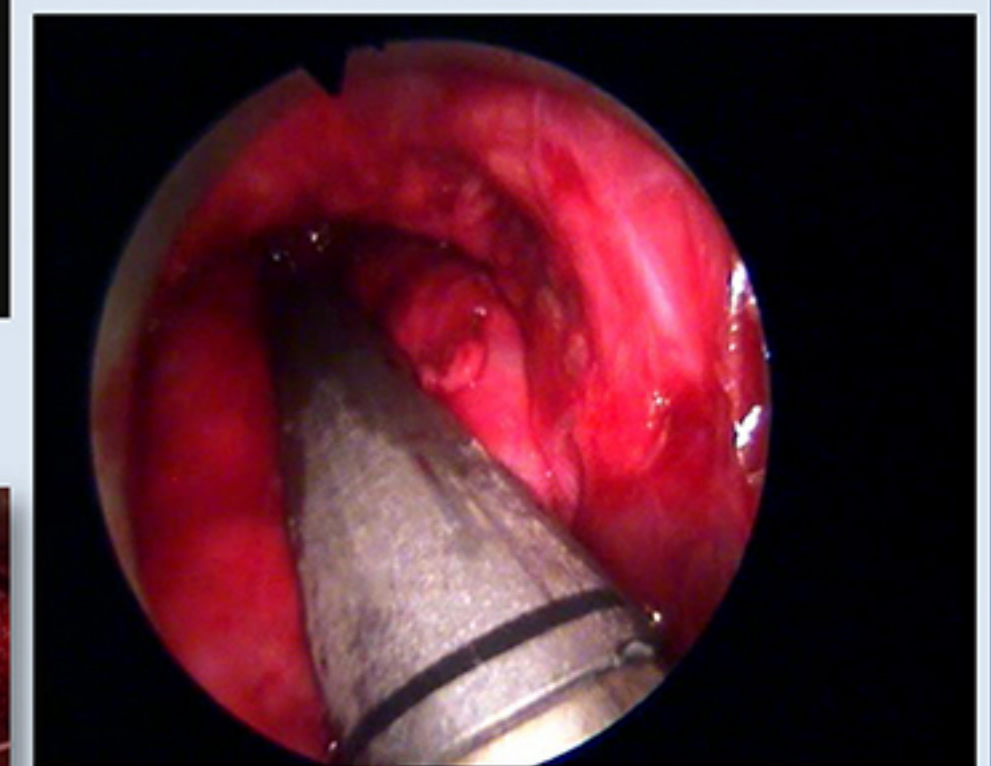
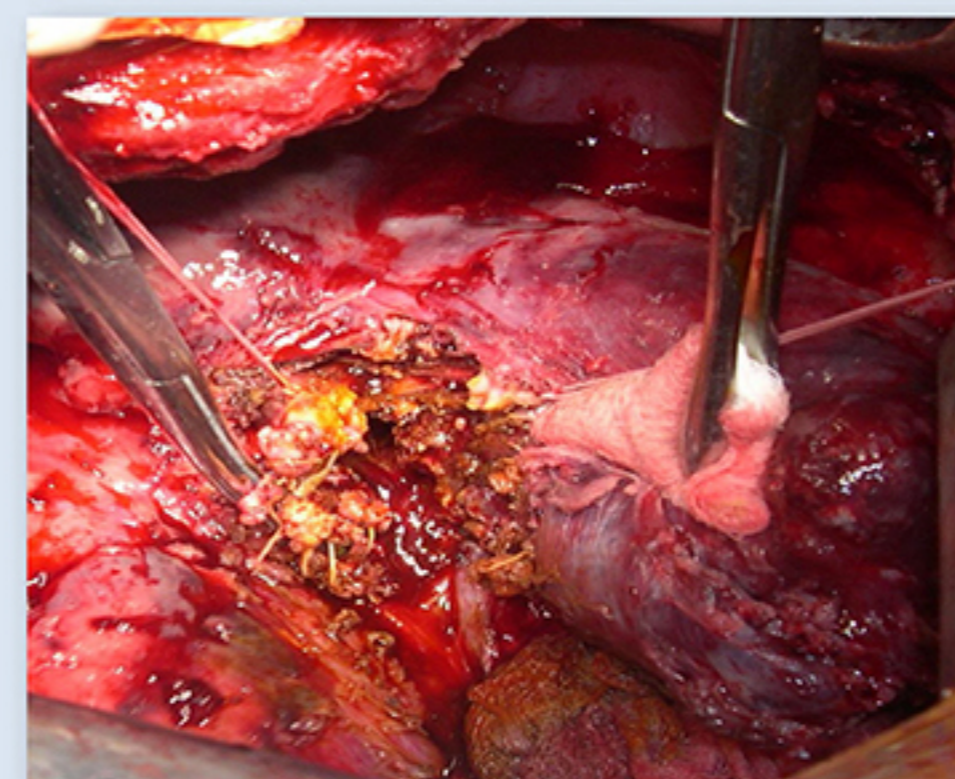
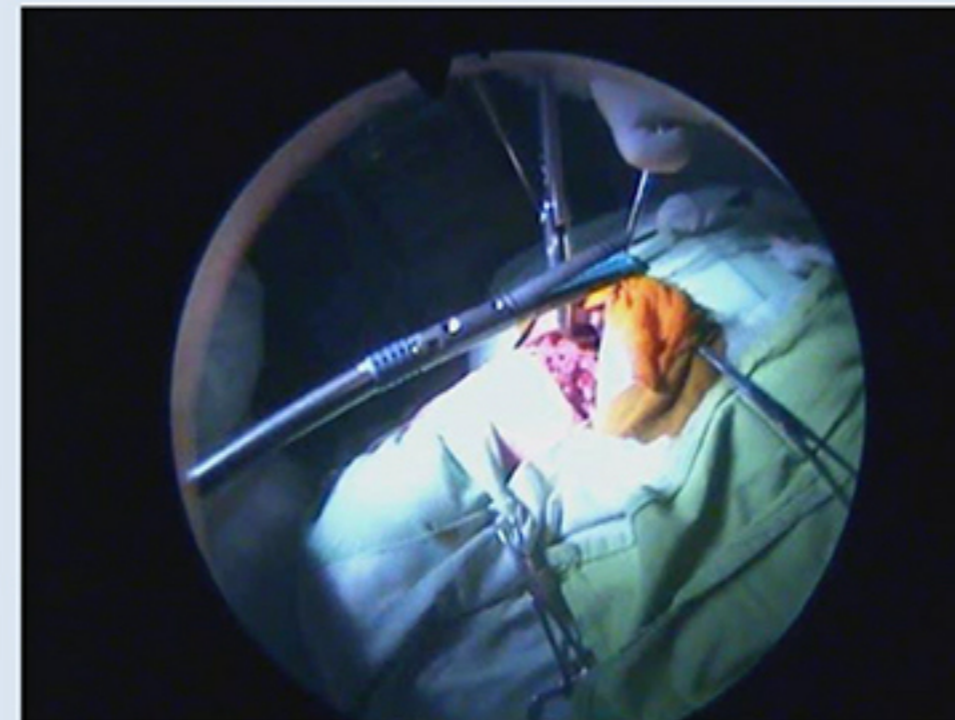
Advantages

- Minimally-invasive division of the bronchial tree +/- AP artery
- Guaranteed short bronchial stump (>1 cm)
- Preserves bronchial vascularization better stump healing.
- Aseptic working environment (the mediastinum).
- Simpler pneumonectomy after exclusion of main bronchus.
- Selective intubation no longer needed for pneumonectomy



Disadvantages

- Two separate surgical procedures
- Risk of bronchial stump dehiscence after stapling
- Specific devices (for transcervical approach)
- Possible mediastinal contamination
- Difficult dissection and extraction of peripheral bronchial stump during pneumonectomy (fibrosis)



Conclusions

The surgical procedures that can be performed in cases of chronic pulmonary lesions vary from minimally invasive to radical methods.

The analysis of these cases is done in a multidisciplinary team, according to the general status of the patient.

References

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