WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Lobectomy: Surgical Procedure for the Left Lobe Due to Tuberculosis

[1]Maga Pira, [2]Babita Kumari, [3]Dr. Priyanka, [4]Divya Thakur

[1] PG Student, Akal College of Nursing, Eternal University
[2] Assistant Professor, Akal College of Nursing, Eternal University
[3] HOD department of MSN, Akal College of Nursing, Eternal University
[4] Assistant Professor, Akal College of Nursing, Eternal University

ABSTRACT :

Mycobacterium TB, M. bovis, or occasionally M. avium, causes the infectious disease known as tuberculosis. It is also known as wasting disease, KOCH's disease, and the white plague. It usually involves the lungs but also affects the lymph nodes, kidneys, bones, adrenal glands, larynx, and meninges and sometimes produces gross lesions in other organs and tissues. A 47-year-old female was admitted to Govt Hospital, Shimla on February 2025 with the chief complaints of coughing out blood, left lateral Chest pain, Shortness of breath, Acid reflux, and fever. After the general physical examination, routine blood profile, and other lab investigations, she was diagnosed with post-tuberculosis sequalae and underwent a lobectomy. The prognosis was positive, and the patient was discharged after a brief hospital stay following the operation.

Key words: TB, M. tuberculosis, PDD, TST, QFT

INTRODUCTION :

One of the most common mycobacterial diseases in people is tuberculosis (TB). Two to three million persons in India are afflicted with tuberculosis. Tuberculosis is an infectious disease caused by Mycobacterium Tuberculosis.

Although it typically affects the lungs, it can also cause gross lesions in other organs and tissues and impact the lymph nodes, kidneys, bones, adrenal glands, larynx, and meninges. These slow-growing organisms are classified as acid-fast aerobics, meaning that heat, sunlight, dryness, and ultraviolet radiation can all kill them.

Transmission

TB is an airborne disease transmitted by an infected person to a healthy person by droplet nuclei through coughing, sneezing, or talking.

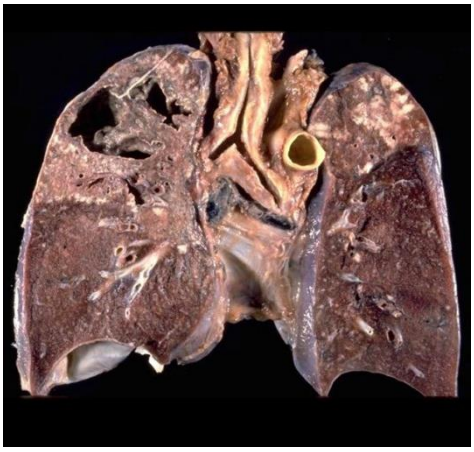


Fig-1: Shows infected lung with tuberculosis

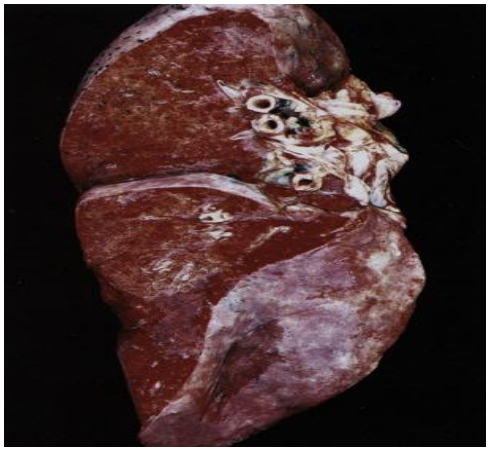
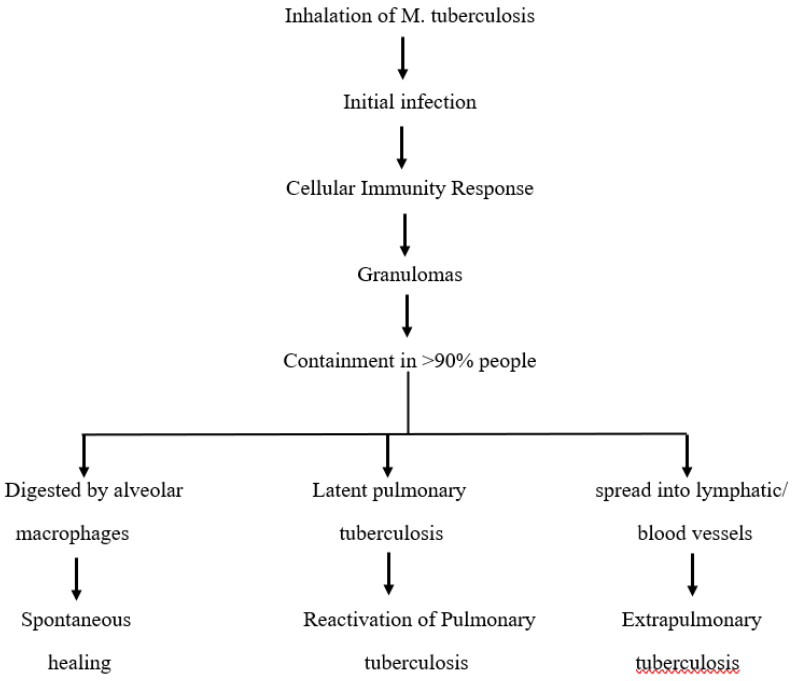


Fig-2: Shows healthy lung

Etiology

- Mycobacterium tuberculosis

Pathogenesis



Diagnostic studies

- History collection
- Physical examination
- Sputum culture
- Tuberculin skin test (TST) or Mantoux test
- Chest X-Ray
- One quick test for tuberculosis is called Quantiferon-TB (QFT).

Treatment

Table 2: Drug Therapy

Drug	Drug
First line drugs	**Second line drugs**
Isoniazid (INH)	Cycloserine
Rifampin	Ethionamide
Ethambutol	Capreomycin
Pyrazinamide (PZA)	Kanamycin
Rifabutin	Para-amino salicylic acid (PAS)
Rifapentine	Fluoroquinolones: levofloxacin, moxifloxacin, gatifloxacin

CASE PRESENTATION :

A 47-year-old woman was admitted to Government Hospital in Shimla in February 2025, presenting with symptoms of hemoptysis, left-sided chest pain, dyspnea, acid reflux, and fever. Following a general physical assessment, routine blood tests, and additional laboratory investigations, she was diagnosed with post-tuberculosis sequelae, leading to both medical and surgical treatment.

- **Past Medical History:** The patient has a documented history of aspergillosis and was treated with anti-tuberculosis therapy in 2007.
- **Past Surgical History:** The patient has no notable previous surgical history.
- **Present Medical History:** The 47-year-old presented to the hospital with primary complaints of fever, acid reflux, dyspnea, left-sided chest pain, and coughing up blood. Her vital signs included an oxygen saturation of 90%, blood pressure of 110/62 mmHg, a pulse rate of 92 beats per minute, and a respiratory rate of 22 breaths per minute. Laboratory investigations indicated that the patient had post-tuberculosis sequelae.

Present Surgical History:

- **Surgery performed:** Left upper lobe lobectomy
- **Indication for the surgery:** Pulmonary tuberculosis
- **Type of anesthesia applied:** General anesthesia
- **Indication:** Fibro cavitary lesion (Aspergilloma) in the upper lobe of the left lung

Findings:

- Adhesions noted between the upper lobe and the anterior chest wall
- Fibrocavitary lesions in the upper lobe measuring 6 x 6.5 cm
- Presence of fungal material in the wall

Chief complaints: Coughing up blood, left-sided chest pain, dyspnea, acid reflux, and fever.

General examination:

- **Weight** : 50 kg
- **Height** : 147 cm
- **GCS** : 15/15
- **Respiratory rate** : 22 breaths per minute
- **SPO2** : 90%

Special investigation:

Routine blood profile, HBA1c, Coagulation Studies, Blood Urea Nitrogen, and Chest X-ray were done

Treatment:

Sr. no.	Name of the drug	Dose	Route	Frequency
Pre-operative				
1	Inj. Ceftriaxone	1.25gm	IV	BD
2	Inj. Pantop	40mg	IV	OD
3	Inj. Gentamycin	60 mg		
4	Inj. PCM	1gm	IV	TDS
5	Inj. Lasix	10mg	IV	SOS
6	Inj. Tranostat	500mg	IV	TDS
7	Inj. Metrogyl	100ml	IV	TDS
8	Inj. Tramadol	80mg	IV	SOS
Post-operative				
9	T. Pantop	40mg	Orally	OD
10	T. PCM	650 mg	Orally	TDS
11	Syp. Ambrodil	2tsp	Orally	TDS
12	T. tranostat	500mg	Orally	BD
13	T. intaconazole	200mg	Orally	TDS
14	Inj. Ceftriaxone	1gm	IV	BD
15	Inj. Gentamycin	60mg	IV	BD
16	Inj. Metrogyl	100ml	IV	TDS

Surgical intervention: left lung upper lobe lobectomy through left posterior lateral thoracotomy

Pre-Operative orders:

The surgical site was prepared while the patient was on NPO. Tests of xylocaine sensitivity for anaesthesia and preoperative drugs, include Tab. Alprax 0.5 gm given orally (HS).

Post-operative Orders:

Post-operatively, the patient's condition was stable and she had no wound seepage. The patient has been prescribed Inj. Xone XP 1.125gm BD, Inj. Gentamycin 60mg BD, Inj. Pantop 40mg OD, Inj. PCM 1g TDS, Inj. Emeset 2.5 ml TDS.

Care plan:

Nursing problems such as impaired gas exchange, ineffective airway clearance, imbalanced nutrition less than body requirement, activity intolerance, and knowledge deficit Nursing interventions are strategically implemented to identify and tackle the issues at hand effectively.

Outcome:

It is a chronic specific inflammatory infectious disease caused by Mycobacterium tuberculosis and can be treated with drugs. But in this case, Mrs Lata Devi was diagnosed with post-tuberculosis sequelae and underwent medical and surgical management. The prognosis was positive, and the patient was discharged after a brief hospital stay following the operation.

Discussion:

Tuberculosis (TB) is a serious worldwide health issue. The World Health Organisation has set a lofty target to cut the prevalence of tuberculosis by 90% between 2015 and 2035.

Diagnostic approaches for tuberculosis (TB), the interferon-gamma release assay (IGRA), and the Mantoux skin test are two examples. The diagnostic and predictive capabilities of each approach are limited.

The most frequent way that bacilli are transferred from one person to another is through airborne droplet nuclei that hang in the atmosphere for a few hours.

A lobectomy is a surgical procedure in which a lobe of the lung is removed. In addition to lung cancer, a lobectomy may also be performed for other medical conditions, such as tuberculosis, severe chronic obstructive pulmonary disease (COPD), or traumatic injuries that affect major blood vessels near the lungs.

Conclusion:

A 47-year-old female came to the hospital with chief complaints of fever, acid reflux, shortness of breath, left lateral chest pain, and coughing out blood. Her oxygen saturation was 90%, B.P- 110/62mmhg, Pulse rate- 92b/min, and respiration rate was 92b/min. After the lab investigation revealed that the patient has post-tuberculosis sequalae. In addition to this she was continued with ATT medications.

REFERENCE:

1. Chintamani, Mani M. Lewis's medical-surgical nursing, south Asia edition: Assessment and management of clinical problems. 3rd ed. New Delhi, India: Elsevier; 2018. p. 558-574.
2. Hariprasath P. Nursing management of patients with valvular disorders. In: Textbook of Cardiovascular and Thoracic Nursing. Jaypee Brothers Medical Publishers (P) Ltd.; 2016. p.515-517
3. https://www.researchgate.net/publication/336269802_A_recent_update_of_the_diagnostic_methods_for_tuberculosis_and_their_applicability_in_Indonesia_a_narrative_review
4. Tobin EH, Tristram D. Tuberculosis overview. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2025.
5. Shah S. Tuberculosis [Internet]. SlideShare. [cited 2025 Mar 13]. Available from: https://www.slideshare.net/slideshow/tuberculosis-242222114/242222114
6. Cole ST. Learning from the genome sequence of Mycobacterium tuberculosis H37Rv. FEBS Lett. 1999 Jun 04;452(1-2):7-10. [PubMed]
7. Lobectomy [Internet]. SlideShare. [cited 2025 Mar 13]. Available from: https://www.slideshare.net/slideshow/lobectomy-241647944/241647944