

A single case study of ayurvedic management of Lung Abscess

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Abstract

A lung abscess is a localized area of lung tissue destruction, typically filled with pus and necrotic debris, often resulting in cavity formation. Initially, the cavity is devoid of air, but once it connects with a bronchus, an air-fluid level becomes visible. Historically, lung abscesses were often linked to a single bacterial type, whereas currently, they're usually caused by a mix of different microbial flora. A Young 27 years male patient came to OPD of CSMSS Ayurved Mahavidyalaya and Rugnalaya, Chhatrapati Sambhajanagar with diagnosed case of lung abscess with symptoms of cough, fever, chest pain, and weakness. An Ayurvedic approach *Shamana Aushadi* treatment *Kanakasava* and *Apamarga Kshara* was used in the management of lung abscess. Significant improvement was observed in symptoms and hematological parameters as well as in radiological reports over 45 days.

Key words: *Apamarga Kshara, Kanakasava, Shamana Aushadi*, Lung Abscess.

Lung abscess is a local suppurative process within the lungs. It is characterized by accumulation of pus accompanied by the destruction of lung tissue. Any pathogen can produce lung abscess. It is mainly due to aerobic and anaerobic organisms. Lung abscess may be primary or secondary; In primary type of lung abscess have no apparent cause and most of them develops as consequence of aspiration of infected material. Secondary type of lung abscess develops as a complication of several conditions like Complication of

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necrotizing pneumonia, Septic embolism, Bronchial obstruction, and miscellaneous causes. Lung abscess may develop any part of lung and may be single or multiple and size may vary from few mm to large cavities of 5-6 cm. Microscopical cardinal feature characterized by suppurative destruction of the lung parenchyma within the central area of cavitation; that shows numerous polymorphonuclear leukocytes and variable numbers of macrophage. The abscess is surrounded by fibrous wall infiltrated by inflammatory cells.⁸ Lung abscess clinical features is Cough, Fever, pleuritic chest pain, large amount of foetid smelling purulent or sanguineous sputum, clubbing of fingers may appears.⁵ Management of lung abscess includes: Antibiotics therapy for 4 to 6 weeks, Physiotherapy and postural drainage, Intercostal tube drainage, Surgical resection may require if medical therapy failure in spite of bronchoscopic clearance.²

Case Report :

Chief complaints :

Cough with foul smell slight yellowish expectoration, Intermittent Fever spikes, Chest pain while long coughing, Weakness for 1 month.

Demographic information of patient :

Age: 27 years

Sex: Male

Religion: Hindu

Marital status: Married

Occupation: Driver at CSMSS Ayurved
Rugnalaya.

Clinical Findings :

H/O present illness :

A Young 27 years male patient came to OPD with diagnosed case of lung abscess with symptoms. He was apparently normal before 1 month, since then he has started suffering from cough and fever initially that's why he was consulted at general practitioner received medicine for 3 days but simultaneously symptoms were increases day by day. Hence, He was hospitalized on 1 sept 2025 in ICU Hospital at Chhatrapati Sambhajinagar with symptoms of Cough with foul smell slight yellowish expectoration, Intermittent Fever spikes, Chest pain while long coughing, Weakness was suggested for blood investigations and Chest X ray. After findings of blood reports and Chest X ray has diagnosed as case of Lung Abscess and started treatment with Linezolid 600 mg I.V. injection twice a day with Tab Xykaa 650 mg (Paracetamol) SOS on fever spike, Syrup Ambrodil S (Ambroxol hydrochloride + Salbutamol) 7ml, thrice a day, Nebulization with Duolin respules (Levosolbutamol + Ipratropium Bromide), thrice a day. Simultaneously to rule out tuberculosis pathology CT scan of Chest, AFB Sputum for 3 days, MTB test was done all reports were suggested there is no any evidence of tubercular pathology. CT scan report finding also representing lung abscess. After 5 days treatment patient was feeling slight better symptomatically and was advised 10 to 15 days continue hospital admission and surgical intervention Intercostal tube drainage may be required for abscess if treatment not responded well. Patient was on quite panic mode and taken DAMA discharged due financial incapability. Then after few days again he

started felling same symptoms hence he consulted at our CSMS Ayurved Rugnalaya on 16th sept 2025.

Patient had a medical past history he was hospitalized in 2020 for treatment Covid 19. Rest of this there is no any past medical history. Patient comprises mixed diet, appetite is poor with disturbed sleep. He had habit of tobacco chewing in the past 7 years. On physical general examination all vitals are with in normal limits, pallor and clubbing also absent. On systemic examination patient was well oriented with the time, date, and place. The S1 and S2 cardiac sounds were heard normally, while respiratory auscultation found bilateral air entry present but decreased breath sound at left upper lobe with coarse crackles.

Diagnostic Assessment :

Patient was pre-diagnosed with all reports suggested that a case of lung Abscess. While Chest X ray finding - Bilateral broncho-vascular marking with air fluid level noted involving left upper zone within a cavitary

lesion, CT scan report finding is thick walled cavitary lesion with internal air-fluid level in the left upper lobe, likely representing lung abscess. (Measures 110 x 84 mm with maximum wall thickness 9 mm), with raised hematological parameters like WBC-20300/cmm, CRP-51.65 mg/dl.

Treatment interventions :

In this case study the patient was started treatment for total 45 days in that for first 15 days treatment was given *Kanakasava* 15 ml thrice a day after food and *Apamarga Kshara* 125mg thrice a day after food with water (Table-1). Next follow up treatment of 16th to 30th day patient received with tapering of dose of *Kanakasava* 10 ml thrice a day after food and *Apamarga Kshara* 125mg thrice a day after food with water (Table-2). After the completion of 30 days treatment ayurvedic medical intervention was continue till 45th day with tapering of dose of *Kanakasava* 10 ml twice a day after food and *Apamarga Kshara* 125mg twice a day after food with water (Table-3).

Table-1. Ayurvedic Medical Intervention was given for 1 to 15th day of treatment.

Sr no	Medications	Dose	Anupana	Duration
1	<i>Kanakasava</i>	15 ml/Thrice a day/ after food	Water	For 15 days
2	<i>Apamarga Kshara</i>	125mg/ Thrice a day / after food	Water	

Table-2. Ayurvedic Medical Intervention was given for 16th to 30th day of treatment

Sr no	Medications	Dose	Anupana	Duration
1	<i>Kanakasava</i>	10 ml/Thrice a day/ after food	Water	For 15 days
2	<i>Apamarga Kshara</i>	125mg/ Thrice a day / after food	Water	

Table-3. Ayurvedic Medical Intervention was given for 31st to 45th day of treatment

Sr no	Medications	Dose	Anupana	Duration
1	<i>Kanakasava</i>	10ml/Twice a day/ after food	Water	For 15 days
2	<i>Apamarga Kshara</i>	125mg/Twice a day/ after food	Water	

Follow up and Outcomes :

Total 45 days study was done with proper observation, investigation and assessment on each follow up of the patient. Hematological parameters- complete blood count (CBC) was

done on each follow-up (Table-4) and Radiological report- Chest Xray done before treatment, on 30th day and 45th day of treatment (Table-5) with assessments of symptoms of the patient on every follow up (Table-6) a significant result is observed.

Table-4. Showing improvement in Hematological parameters

Sr no	Investigation	Before Treatment	After treatment		
			1 st follow up [01/10/2025]	2 nd follow up [16/10/2025]	3 rd follow up [01/11/2025]
1	Hb [g/dl]	14.2	14.3	13.8	13.2
2	WBC [/cmm]	20300	15400	11200	9400
3	Platelet [/cmm]	673000	455000	389000	239000
4	C-Reactive Protein (mg/dl Quantitative)	51.65	30.80	12.25	5.42

Table-5. Showing radiological report before and after treatment

Report-1-Before Treatment [16/09/2025]	Report-2-After treatment- on 2 nd follow up [16/10/2025]	Report-3-After treatment- 3 rd follow up [01/11/2025]
		

Table-6. Showing improvement in symptoms of patient

Sr no	Symptoms	Before Treatment	After treatment		
			1 st follow up [16/09/2025]	2 nd follow up [16/10/2025]	3 rd follow up [01/11/2025]
1	Cough	Severe	Moderate	Mild Intermittent	Absent
2	Foul smell expectoration	Severe	Moderate	Mild	Absent
3	Fever spikes	Severe	Moderate	Mild Intermittent	Absent
4	Chest pain	Moderate	Mild	Absent	Absent
5	Weakness	Moderate	Mild	Absent	Absent

In this case study of Lung Abscess patient were received a 45 days treatment with ayurvedic *Shamana Aushadi- Kanakasava* with *Apamarga Kshara*. The treatment intervention was adjusted every 15 days, with tapering of dose. There was Significant improvement found with hematological parameters, there was gradual drop in WBC counts on each follow up and was within normal limits after treatment. Radiological finding showed before treatment air fluid level noted involving left upper zone within a cavitory lesion, and after 30 days of treatment cavitory lesion subsided without any reoccurrence, as well as significant improvement also found in all symptoms of patient.

Kanakasava is classical polyherbal ayurvedic formulation consists of *Datura* (*Datura metel* Linn.), *Vasa* (*Justicia adhatoda* L.), *Yashtimadhu* (*Glycyrrhiza glabra* L.), *Pippali* (*Piper longum* L.), *Kantakari* (*Solanum virginianum* L.), *Nagakesara* (*Mesua ferrea* L.), *Shunti* (*Zingiber officinalis* Rosc.), *Bharangi* (*Rotheca serrata* L.), and *Talisapatra* (*Abies spectabilis* D. Don).¹ It has been widely used in the treatment of *Swasa* (Asthma), *Kasa* (Cough), *Rajayakshma*

(Tuberculosis), *Kshataksheena* (~phthisis), *Jirna jwara* (chronic fever) etc. *Kanakasava* has proven for its potent pharmacological activity like Bronchodilator, Anti-asthmatic, Anti-allergy, Anti-tubercular, Anti-inflammatory, Anti-tussive which help in the management of lung abscess.¹⁰ *Kanakasava* with *Apamarga Kshara* was a classical medicine widely use in treatment of *Swasa*, *Kasa* for quick relief.³ *Apamarga kshara* is an alkaline preparation prepared from *Apamarga* (*Achyranthes aspera*) in powder form and it has wide range of therapeutic uses.⁹ The *Apamarga Kshara* having properties of *Ksharana* (debridation), *Bhedana* (incision), *Chhedana* (excision), *Shodhana* (purification), *Stambhana* (haemostatic), and *Ropana* (healing).⁶ This *Kshara* has Anti-inflammatory, Anti-septic, Antimicrobial, Debridement, stimulate granulation tissue formation, enhancing circulation which facilitates the delivery of oxygen and nutrients essential for tissue repair, etc.⁷ *Apamarga Kshara* with *Kanakasava* will helpful in obstructed mucus in lungs by liquification.⁴

Lung abscess is a localized collection of pus in the lungs caused by pyogenic organisms. It is usually subacute infection. The drugs

selected for the treatment of this case study of lung abscess were helpful to break down pathogenesis of disease due to multifactorial potential effects and also prevents reoccurrence of disease.

In this case study, an ayurvedic *Shamana Aushadi* treatment approach shows promise in management of lung abscess. Patient has shown significant results is observed in patient symptoms, and hematological, radiological reports. *Kanakasava* with *Apamarga Kshara* is having Bronchodilator, Anti-asthmatic, Anti-allergy, Anti-tubercular, Anti-inflammatory, Anti-tussive, antimicrobial properties contributed to the treatment's success.

Credit author statement :

Dr Ashish: Conceptualization, Formal Analysis, Investigations, Resources, Original draft preparation, Writing- Reviewing and Editing, Visualization. **Dr Sandip :** Conceptualization, Formal Analysis, Investigations, Resources, Original draft preparation, Writing- Reviewing and Editing, Visualization. **Dr Naresh :** Conceptualization, Methodology/ Study design, Validation, Investigations, Project administration, Supervision. **Dr Atul :** Conceptualization, Methodology/ Study design, Investigations, Writing- Original draft preparation, Writing- Reviewing and Editing.

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