



## Pulmonary Medicine

## DEMOGRAPHIC, CLINICAL & ETIOLOGICAL PROFILE AND TREATMENT OUTCOME OF HEMOPTYSIS PATIENTS IN A TERTIARY CARE HOSPITAL IN SOUTH INDIA

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### KEYWORDS :

#### INTRODUCTION

Hemoptysis is one of the commonest manifestations of various pulmonary disease. The wide spectrum of etiological factors of hemoptysis, makes the treatment difficult and disease specific. (1)

Hemoptysis is defined as the expectoration of blood derived from the lungs as a result of pulmonary or bronchial vascular Hemorrhage. (2)

Massive Hemoptysis is an alarming and life threatening entity associated with mortality upto 78%.

Earlier studies have documented the etiology of massive Hemoptysis to be mostly due to tuberculosis and post tubercular bronchiectasis. (2)

#### AIMS AND OBJECTIVES

1. To know the demographic, clinical and etiological profile of Hemoptysis.
2. To know the treatment outcome of Hemoptysis patients.
3. To know the length of stay in hospital.

#### METHODS & MATERIALS

This is a retrospective study. Pts with Hemoptysis admitted to Government hospital for chest and communicable diseases, a tertiary care teaching hospital attached to Andhra medical college, Visakhapatnam, A.P, India . between Jan 2016 to Nov 2017 were considered for the study

Data from the case sheets was obtained and analysed

#### Type of Study:

Retrospective, Descriptive.

#### Period :

From January 2016 to November 2017.

#### RESULTS

Within the above said period, 230 patients were admitted with hemoptysis, their characteristics were reviewed.

#### Demographics:

In our study, out of 230 patients with hemoptysis, 39 (17%) were females and 191 (83%) were males. 151 (65.65%) patients were in the 31-60 years age group.

#### Sex distribution :

Males : 191      83%  
Females: 39      17%  
Total: 230

#### Age distribution :

Age	Male	Female	%
12-20	8	3	4.78%
21-30	22	8	13.04%
31-40	39	8	20.43%
41-50	39	9	20.86%
51-60	48	8	24.34%

61-	35	3	16.52%
Total	191	39	100%

#### Clinical Characteristics:

Among the total 230 patients, 83 (36.08%) patients were smokers, 90 (39.13%) patients were alcoholics, 7 (3.04%) patients were having hypertension, 30 (13.04%) with DM, 10 (4.34%) patients were PLHIV patients.

#### Clinical characteristics

	Male	Female	%
Smokers	79	4	36.08%
Alcohol	90	0	39.13%
DM	25	5	13.04%
HTN	7	0	3.04%
PLHIV	8	2	4.34%
associated DCM, HOCM		11	4.78%

#### The causes of Hemoptysis:

Sequelae of previously treated pulmonary tuberculosis was the commonest cause of hemoptysis among the study population. It comprised 154 (66.9%) patients. Second frequent cause of hemoptysis noted in our study was Bronchiectasis 18 patients (7.8%). Other notable causes of Hemoptysis in our study were pneumonia 17 patients (7.39%), malignancy 15 (6.52%) patients / Aspergilloma 5 patients (2.17%), lung abscess 1 patient (0.43%), 25 (10.86%) patients were having active PTB.

29 (12.60%) patients needed blood transfusion. Among these 29 patients, B+ve are 17 (58.62%), A+ve are 6 (20.68%), O+ve are 5 (17.24%), and AB+ve, 1 (3.44%).

#### Causes of Hemoptysis

Cases of Hemoptysis	Male	Female	%
PTB (sequelae)	133	21	66.95%
PTB (active)	22	3	10.86%
Bronchiectasis	11	7	7.82%
Pneumonia	14	3	7.39%
Malignancy	14	1	6.52%
Aspergilloma	2	3	2.17%
Lung abscess	1	0	0.43%
Bronchitis	8	1	3.91%

#### Modality of diagnosis:

Chest X-ray PA, complete blood picture and blood grouping, sputum for CBNAAT were done for all patients with Hemoptysis. CT Scans were done in necessary patients for example - Bronchiectasis, Lung abscess, carcinoma lung, Aspergilloma. Bronchoscopy was done wherever it was needed.

#### Treatment outcome:-

A total of 205 (89.1%), were managed conservatively with intravenous antibiotics, Tranexamic acid & cough suppressants. Bronchial artery embolization in 10 cases. Only 22 (9.56%) patients left the hospital against medical advice.

#### Blood transfusion :-

A+ve group	B+ve group	O+ve group	AB+ve	
6	17	5	1	12.60%

We had given blood transfusion in 29 patients. Majority patients were of B+ve blood group.

#### Duration of Hospitalization:

Mean duration of length of the stay in hospital in males 8.28 days.

Mean duration of length of the stay in Hospital in females 7.23 days.

Mean duration of length of the stay in hospital is 8.10 days. Majority (86%) could be discharged within 10 days

#### Length of stay in hospital :-

	Male	Females	%
1-10 days	156	42	86.00%
11-20 days	26	6	13.91%
21-30 days	9	1	4.34%

#### Occupation:-

Cooly / Labour	76+92	73.04%
Driver	2	0.86%
Agriculture	7	3.04%
Painter	3	1.30%
Students	3	1.30%
Employers	4	1.73%
Carpenter	1	0.43%
Dhobi	2	0.86%

In our study 168 (73.0%) patients were labourers

#### Seasonal incidence:

More Hemoptysis cases occurred in winter and rainy seasons 225/230 (97.8%) cases.

#### No of cases in each month :-

Month	Male	Females	%
January	23	6	12.6%
February	22	7	12.6%
March	21	1	9.56%
April	-	-	
May	1	0	0.43%
June	-	-	
July	1	3	1.73%
August	16	4	8.69%
September	33	8	17.82%
October	31	3	14.78%
November	35	6	17.82%
December	8	1	3.91%

#### DISCUSSION

Hemoptysis is one of the most common symptoms in patients with various pulmonary diseases. When Etiological pattern of hemoptysis is elucidated, pulmonary tuberculosis remains to be the major cause of Hemoptysis. (5) (6) PTB is prevalent in poor and people with low socio economic status in developing countries like India. Previously treated PTB and its sequelae like post tubercular bronchiectasis and secondary bacterial infection of residual cavitory lesions account for the majority of cases of hemoptysis (N=154; 66.95%). In only 25 cases (10.86%), active PTB disease was found second common cause of Hemoptysis was bronchiectasis 18 pts (7.8%). (7) Its justified to be the next common cause in countries like India where childhood recurrent respiratory infections are prevalent.

Length of stay in hospital was 8.10 days, and most of the hemoptysis subsided by conservative management in 205 cases (89.1%)

In our study, manual labour was the commonest occupation who presented with hemoptysis. Its understandable as PTB is common in low socio economic strata.

In our study more number of cases of hemoptysis occurred in winter & rainy months, as viral and bacterial infections are more common these seasons

#### Limitation :

One drawback of our study could be that some of the patients left the hospital against medical advice, so we couldn't give actual number of deaths (3) (4).

#### CONCLUSION

The most common causes of Hemoptysis were sequelae of previously treated PTB and Bronchiectasis. Though, bronchial artery embolization is a life saving procedure, conservative management is successful in a majority of cases of hemoptysis. The successful treatment of Hemoptysis requires thorough diagnostic evaluation and close and timely interdepartmental collaboration between pulmonologists and interventional radiologists

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