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A STUDY OF CLINICAL PROFILE OF HEMOPTYSIS AND ITS CORRELATION WITH RADIOLOGICAL, MICROBIOLOGICAL AND PATHOLOGICAL FINDINGS

Medical Science

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KEYWORDS

INTRODUCTION

Haemoptysis is a frequently occurring life threatening situation which can occur in various pulmonary conditions. Managing a case of haemoptysis is often difficult due to a large spectrum of causative factors. The effective control of haemoptysis depends upon identification of the aetiology and localization of the site of bleeding. In developing countries like India the most common etiology are tuberculosis and bronchiectasis.[1]

In developed countries inflammatory processes bronchitis and neoplasm are the most common causes of blood arising within the airways.[2] First priority in the care of a patient with life-threatening haemoptysis is to protect the airway by single- or double-lumen bronchial intubation and prevent asphyxiation and conservative management for patients with mild haemoptysis. If severe haemoptysis from bronchial arteries present it can be treated with angiographic embolization of the responsible bronchial artery. If these modalities fail to stop the bleeding, surgical exploration may be required.[3,4,5]

METHODS AND MATERIALS

The study was carried out at Department of Pulmonary Medicine, G.K. general hospital ,Bhuj .institutional Ethics committee approval with proper informed consent of the patient. Data from these patients was collected for the analysing the underlying cause & it's correlation with radiological, microbiological and pathological findings. Patients of all ages & either sex were selected randomly from patients admitted in ward & attended at OPD. 100 adult patients presenting with hemoptysis were enrolled in the study. All patients were asked in detail about the relevant clinical history & were examined thoroughly.. All cases were treated conservatively initially (antitussives, sedatives, antimicrobials). Patient with massive hemoptysis given plasma expanders and blood transfusion. Patients were investigated with below listed with stepwise approach

Haemogram: .Hemoglobin, total count and differential count and Platelet count Sputum study for acid fast bacilli, culture & sensitivity and cytology.

Chest radiology –cxr pa view and ct thorax.

Results

Based on data pulmonary tuberculosis, both active and inactive, was found to be the leading cause (57%) of hemoptysis in our patients(table 1) in which Klebsiella organism was (20%) present with hemoptysis followed by E.coli (13%), Pseudomonas (11%), Enterococci (2%), Staphylococci (1%), Streptococcal Pneumoniae (1%) were seen in our hemoptysis patients which shown in Table 2. In this study more than two zone involved radiological lesion attributed (29%). Also RUZ (24%), LUZ (22%), RLZ (10%), LLZ (5%), RMZ (5%), and normal radiological finding in (5%) patients of haemoptysis at presentation of our hospital which is shown in Table 3

Table 1

Etiologies	No. of Patients	Percentage
Pulmonary Tuberculosis	57	57%
Neoplasm	19	19%
Bronchiectasis	11	11%
Others	13	13%
Cardiovascular	03	03%
Pneumonia	02	02%
Obst. Lung disease	03	03%
ILD	01	01%
Pulmonary embolism	01	01%
Lung abscess	01	01%
Idiopathic	02	02%

Table 2

Radiological Findings	No. of Patient	Percentage
More than two Zone	29	29%
RUZ	24	24%
LUZ	22	22%
RLZ	10	10%
LLZ	5	5%
RMZ	5	5%
Normal	5	5%

Table 3

Organism	No. Of Patients	Percentage
No Growth	52	52%
KLEBSIELLA	20	20%
E.COLI	13	13%
PSEUDOMONAS	11	11%
ENTEROCOCCI	2	2%
STAPHYLOCOCCI	1	1%
STREPTOCOCCAL PNEUMONIAE	1	1%

DISCUSSION

All the patients with hemoptysis presenting at hospital was determined on the basis of all available clinical profile, their investigation profile of all basic requirement likewise pathological radiological and microbiological with their correlation to evaluation. . In our study results found that pulmonary tuberculosis (57%), Neoplasms cases were (19%), Bronchiectasis (11%), and others, causes (13%). In our study patients, Klebsiella organism was (20%) present with hemoptysis followed by E.coli (13%), Pseudomonas (11%), Enterococci (2%), Staphylococci (2%), Streptococcal Pneumoniae (1%). In our study found that 95 % patients of hemoptysis had radiological positive finding on initial investigation of chest X ray.

CONCLUSIONS

Haemoptysis is a frightening & a common presenting symptom amongst patients presenting to chest clinics all over the world including India.. Male sex was more commonly affected (73%) than female sex (27%). Haemoptysis was probably higher rate in pulmonary tuberculosis patients in our study(57%) whether there was active or inactive disease of tuberculosis because high prevalence of tuberculosis in our country. Microbiologically kleibsella (20%) was most common associated organism with haemoptysis. Radiologically involovement of more than 2 zones was seen in (29%)patients

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