Original Research Paper

Cardiology

A STUDY ON SURGICAL MANAGEMENT OF BENIGN LUNG DISEASES BY LUNG RESECTIONS-AN RETROSPECTIVE ANALYSIS

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ABSTRACT   This study was conducted in order to know the prevalence of benign lung diseases and its effective surgical management by lung resections and its outcomes.

SUBJECTS AND METHODS:
A total of 36 patients who underwent any form of lung resection were included in the study retrospectively from january 2014 to December 2018 in a single unit in Stanley medical college hospital and their clinical scenario and appropriate management was analysed.

RESULTS:
Among benign lung diseases of 36 patients, bronchiectasis accounts for major burden which lead to lung resections of about in 19 patients, followed by other diseases like aspergllloma, lung abscess, tuberculosis, destroyed lung. Among various types of lung resections lobectomy is the common procedure performed.

CONCLUSION:
Bronchiectasis is the common benign disease which lead to lobectomy in our institution.

KEYWORDS :

INTRODUCTION

Benign lung diseases like bronchiectasis, aspergilloma, tuberculosis and lung abscess most of the time end in chronic state which usually require some sort of surgical intervention to attain symptomless life. Bronchiectasis is chronic irreversible dilatation of bronchi and bronchioles and it leads to recurrent lung infection. Pulmonary aspergilloma is more common in patients with preexisting lung disease and cavities which leads to chronic recurrent hemoptysis which in turn leads to significant morbidity and mortality. Tuberculosis in india is the highly prevalent and eventhough RNTCP guidelines were strictly followed significantly it leads to chronic irreversible changes and complications in lung which leads To surgical treatment.

SUBJECTS AND METHODS

The study was conducted in govt Stanley medical college, Chennai in a single unit of cardiothoracic sugery which is a tertiary care centre. 36 patients underwent lung resections from january 2014 to December 2018. All the patients record were retrieved and their clinical scenario, their radiological findings, indications of surgery and the type of surgery performed were studied. The extent of lung resection depends upon their clinical picture, radiological picture (degree of involvement) and their functional reserve capacity of patient. The retrieved data shows all patients underwent pre operative pulmonary function tests and their co morbities were studied.
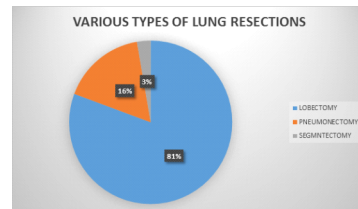
RESULTS

Out of 36 lung resections done from 2014 to 2018 in Stanley medical college and hospital male – female ratio is 25 : 11 that is 69.5% in males and 30.5 % in females.
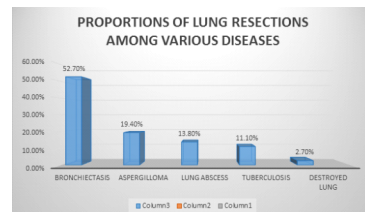

SEX DISTRIBUTION OF LUNG DISEASES
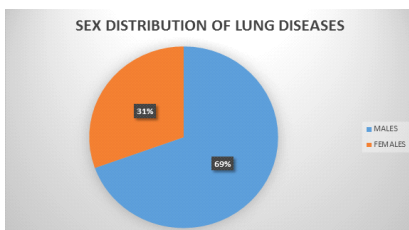
Out of 36 lung resections,80.5% (n=29) accounts for lobectomies, 16.6% (n=6) accounts for pneumonectomy and 2.7% (n=1) accounts

for segmentectomy.

VARIOUS TYPES OF LUNG RESECTIONS

Among 36 patients, 52.7% (n=19) surgeries were done for bronchiectasis, 19.4% (n=7) surgeries were done for aspergilloma, 13.8% (n=5) surgeries were done for lung abscess, 11.1% (n=4) surgeries were done for tuberculosis and 2.7% (n=1) done for destroyed lung.

PROPORTIONS OF LUNG RESECTIONS AMONG VARIOUS DISEASES

Among 36 patients,24 cases were done between age group of 30-50 yrs, 7 cases were done in less than 30 yrs and 5 cases were done in more than 50 years group.

AGE DISTRIBUTION AMONG BENIGN LUNG DISEASES

	<30 yrs	30-50	>50 yrs
BRONCHIECTASIS	5(26.3%)	12(63.1%)	2(10.5%)
ASPERGILLOMA	1(14.2%)	5(71.4%)	1(14.2%)
ABSCESS	1(20%)	3(60%)	1(20%)
TUBERCULOSIS	--	2(50%)	2(50%)
DESTROYED LUNG	--	1(100%)	--

DISCUSSION

From the above results it is clear that lobectomy is the common lung resection done for benign lung diseases and bronchiectasis is the most common disease which ends in lobectomy in our institution. All the benign lung diseases which ends in surgery is more common

among 30-50 age group people and among them nearly 70% are males due to risk factors like smoking, occupational exposure, etc.

Bronchiectasis is chronic necrotizing infection of bronchi and bronchioles causing permanent dilatation of airways. Initial treatment is mainly medical management. Surgical management is indicated in patients who fail medical therapy, recurrent infections and abscess and recurrent hemoptysis.

Aspergilloma is caused by aspergillus fumigatus and is usually diagnosed by culture, serology and radiological investigations. Surgery is done in patients who fail anti fungal treatment. Surgery not only offers symptomatic control but also gives survival benefits.

Lung abscess is liquefactive necrosis of parenchymal tissue leading to cavities containing debris. Mostly occurs due to aspiration, septic emboli, necrotizing pneumonia ,etc.

Lung resections in tb are indicated in failure of medical therapy in MDR patients, repeated hemoptysis, localized lesion, etc.

All patients who underwent surgery is pre operatively well assessed and selected for surgery only if indicated for surgery based on clinical and radiological feature. For every patient pre operatively high resolution contrast ct was done. On a whole lung resections plays a major role in most of the chronic benign lung diseases in decreasing morbidity and mortality.

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