INCIDENCE OF REVERSIBLE OBSTRUCTIVE AIR WAYS DISEASES IN CHEST CLINIC OF AIN SHAMS HOSPITAL.

M. S. THESIS

Submitted For The Partial Fulfillment of
The Degree of Master in Chest Diseases

By

Mohamed Mahmoud Pad Elhak

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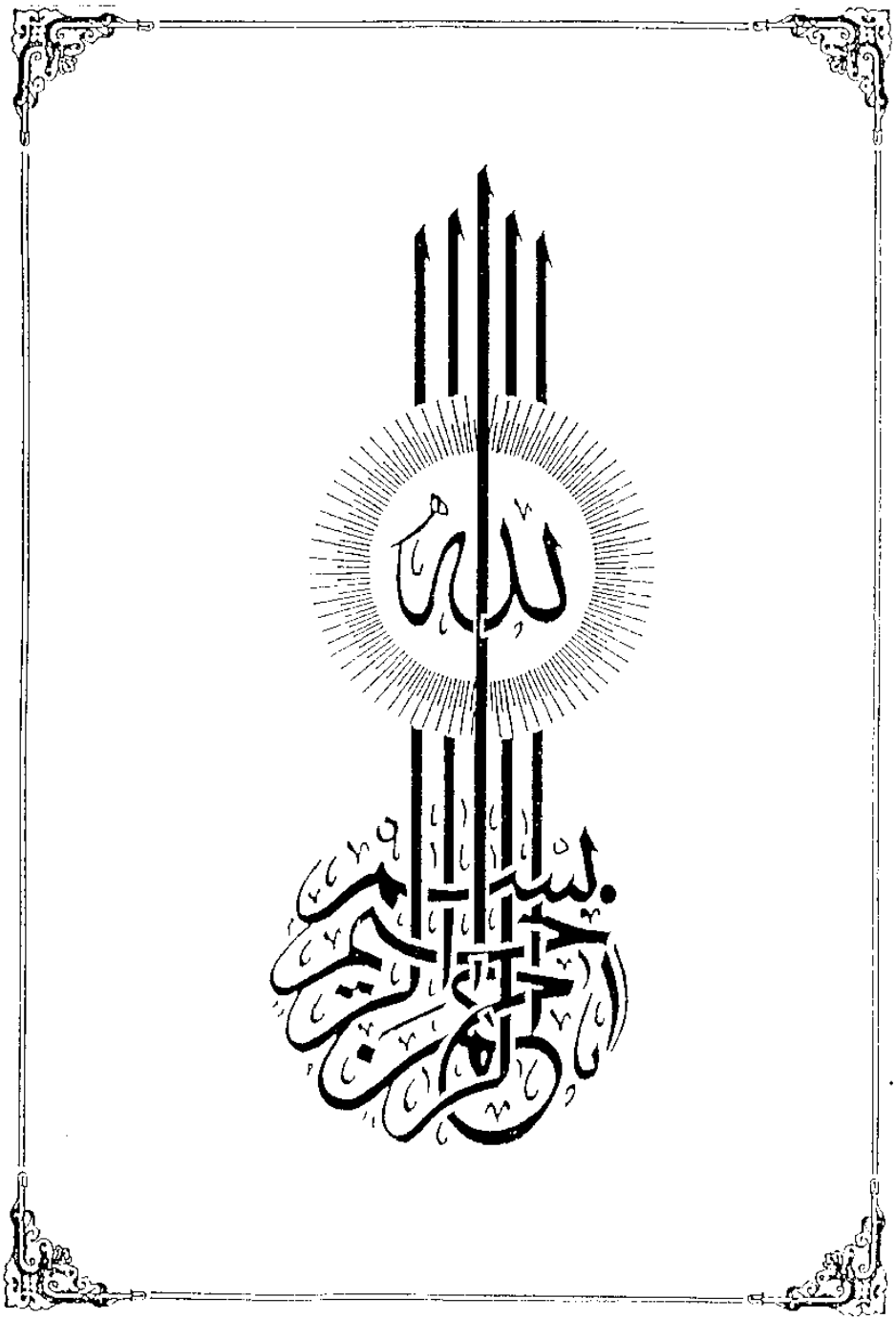

بسم الله الرحمن الرحيم

« وقل رب زدنى علمـــا »

« صدق الله العظيم »

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M. M. Gad El Hak.

INTRODUCTION

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The obstructive airways diseases are farily commen health proplem in many parts of the world. It interfere with normal life causing absence form work and disability. The irreversible airways diseases are oppressive not only for patients but also for physicians who find that no response to their treatment.

Its frequency in general population has been demonstrated by several surveys e.g. in Great Britian (1961 ♂ 17%, ♀ 8%)[16] * (1964)[18] and in Egypt Saudi (1972)[40] 11.9%

Hosny (1974)[28] found that obstructive airways diseases among attendants to Subra chest clinic 23.07% in comparison with pulmonary tuberculosis (11.61%) .

A. Sami & associated reported (31.7%) out of 555 patients attended out chest clinic of Cairo university hospital and two special clinic.

The percentage of obstructive airways in patients attending out chest clinic of Ain Shams Hospital is 79.9% in 1979.

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* In U.S.A. 47% in ♂ patiant aged 55 - 69.
17% in ♀ patiant aged 55 - 69.
In U.K. 52% in ♂ patiant aged 55 - 69.
27% in ♀ patiant aged 55 - 69.

AIM OF THE WORK

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The aim of this work is to determine the incidence of reversible obstructive airways diseases in patients attending the chest clinic of Ain Shams University Hospital.

REVIW OF LITERATURES

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Definiation & Classification of obstructive airways diseases .

Ciba guist symposium (1959) defined chronic non spesific respiratory diseases by the presence of one or more of the following: chronic cough, expectoration and paroxymal or persistent excessive breathlessness which are not solely attributable to localised lung diseases, granuloma, primary cardovascular of renal disease & diseases of chest wall. These diseases were classified by the same symposium into:

- Chronic bronchitis: The condition of subject with chronic recurrent excessive mucous secreation in bronchial tree. The word chronic or recurrent was defined as occuring most for at least 3 months in the year at least 2 years.
- Asthma: intermittent or reversible obstructive lung diseases The condition of the subject with wide spread narrowing of the bronchial airways which change its severity over short periods either spontineously or under treatment and not due to cardovasclar disease .
- Irreversible or persistent obstructive lung disease . The condition of subject with wide spread narrowing of bronchial airways which had been present for more than one year and not affected by bronchial dilators drugs including corticosteroids.

The American Thoracic Society (1962)[5] defined chronic bronchitis, emphysema and asthma as follow; chronic bronchitis, is a clinical disorder charaterised by excessive mucous secreation in the bronchial tree. It is manifested by chronic or recurrent productive cough, present on most days for a minimum of 3 monthes

in the year and for not less than two successive years excluding pulmonary tuberculosis, lung abcess, bronchiectasis, as well as cardiac disease.

Asthma, was defined as disease characterised by increased responsiveness of the trachea and bronchi to various stimuli and manifested by wide spread narrowing of the airways that changed in severity either spontenously or as a result of therapy, excluding bronchial narrowing which result solely from wide spread bronchial infection e.g. acut or chronic bronchitis or from destructive disease of the lung as emphysema , or from cardovascular diseases.

Pulmonary emphysema was defined as an anatomical alteration of the lung characterised by an abnormal enlargement of the air spaces distal to terminal non respiratory bronchioles accompanied by destructive changes of the alveolar wall.

Goeffry L. Brinkeman and associates (1962)[21] defined bronchitis as daily cough for at least the preceeding six months, productive of at least one tea spoon sputum per day.

Benjamin G. and associates (1962)[10] considered the patient to has chronic bronchitis when he is bringing phligm from the chest six times per day for 4 days a week for 3 months in a year for the past 3 years or more.

C. M. Fletcher (1963)[14] stated that it is very difficult to define chronic bronchitis as it covers wide range of clinical state and there are many gaps in our knowledge of their pathogenesis, morbid anatomy and natural history. He mentioned that there are three components in the chronic bronchitis syndrom .

The first is simple chronic bronchitis. It may be defined as expectoration of mucous on most days for as much as three monthes in the year for at least two consecutive years.

In the next stage of chronic bronchitis the mucoid sputum becomes intermittently purulent, when the subject has what he may describe as chest colds or an attack of bronchitis . These attackes occur most commenly in the winter and appear somtimes to preceded and perhaps induced by Coryza. These episodes appear to be due to bacterial infection.

The third stage is chronic bronchitis with airways obstruction when chronic bronchitis cause shortness of breath. The shortness of breath is usually associated with wheezing. In this case there is a problem of distingishing chronic bronchitis from asthma and emphysema.

It has been shown that the difference between British chronic bronchitis with airway obstruction and American emphysema is largely semantic A. Bouhays (1963)[6] .

In order to investigate the semanitic confusion with regard the terminology of airways diseases standardised comparitive clinical, roentgenological and pulmonary function study was made on 50 patients attending bronchitic clinic in London and 50 patients attending emphysema clinic in Chicago. The patient in two clinics proved to be similar in most respects, but in London the patient tended to show higher incidence of recurrent disabling chest infection. This difference was relatively slight and it is concluded that the distiniction between British bronchitis

and American emphysema is largely semanitic (1963)[14].

B. Burrow and associates (1964)[12] categorised these hundard patients (50 from London & 50 from Chicago) into groups. The first group characterised by roentgenologic evidence of emphysema , high total lung capacity, low mean pulmonary diffusing capacity per liter of lung volum, produce relatively small quantities of sputum, have relatively late onset of cough and rearly show chronic hypercapnea, corpulmonale or polycythemia. The second group characterised by roentgenological evidence of inflamatory disease well preserved diffusing capacity, larger quantity of sputum, often sputum have early onset in life, more purulent smaller total lung capacity, more frequent co_2 retention, elevated haemoglobin levels and right vantricular hypertrophy. So chronic obstructive lung diseases can be categoraised into type (A) or emphysematous type and type (B) or bronchietic type and type(x) or intermediate type on the basis of clinical, radological and physological findings.

There was no difference between British bronchitis and Amercian emphysema. This was not only clinically, radological and physological but also pathological . This pathological similarity was proved by B. Burrow and associates (1967)[11].

The term obstructive bronchopulmonary diseases has been devised by Roger S. Mitched and Giles F. Filly (1964)[39] as its components can be identified in life by clinical means and quantitated by lubratory methods without implying the morphologic entities emphysema or chronic bronchitis is present.

Donald Mossaro and associates (1965)[18] defined chronic