

**Study Of The Pattern Of Bronchial Asthma Among
Outpatients Clinic At Sohag And Akhmeem Chest Hospitals**

Thesis

***Submitted for Partial Fulfillment of Master Degree
In Chest Diseases and Tuberculosis***

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قَالُوا سُبْحَانَكَ لَا
عِلْمَ لَنَا إِلَّا مَا
عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم
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List of abbreviations

ACE	Angiotensin converting enzyme inhibitors
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ACT	Asthma control test
AIA	Aspirin induced asthma
AIRE	Asthma insight and reality study
ARIA	Allergic rhinitis and its impact on asthma
ATAQ	Asthma therapy assessment questionnaire
ATS	American thoracic society
BHR	Bronchial hyper responsiveness
CDC	Center for disease control and prevention
COPD	Chronic obstructive pulmonary diseases
cysLR	Cystinyl leukotrienes receptors
DALYS	Disability adjusted life years
ED	Emergency department
EIA	Exercise induced asthma
ETS	Environmental tobacco smoke
FEV₁	Forced expiratory volume in 1 second
FVC	Forced vital capacity
GC	Glucocorticoids
GER	Gastro esophageal reflux disease
GM-CSF	Granulocytes macrophages colony stimulating factor
GRS	Glucocorticoids receptors
HFA	Hydroflouroalkane
ICS	Inhaled corticosteroids
IL 1	Interleukin 1
LABA	Long acting B ₂ agonists
LMS	Leukotrienes modifiers

List of abbreviations (Cont.)

LTS	Leukotrienes
MDC	Macrophages derived chemokines
MDI	Metered dose inhaler
NA	Nocturnal asthma
NO	Nitric oxide
NO	Nitric oxide
OA	Occupational asthma
OSA	Obstructive sleep apnea
PEF	Peak expiratory flow
RSV	Respiratory syncytial virus
SABA	Short acting B ₂ agonists
SMART	Salmeterol multicenter asthma research trial
TARC	Thymus and activation regulated chemokines
TH₁	T helper ₁ cell
TH₂	T helper ₂ cell
TNF α	Tumor necrosis factor α
U.K	United Kingdom
VCD	Vocal cord dysfunction
VEGF	Vascular endothelial growth factor

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INTRODUCTION

Asthma is an inflammatory disorder of the airways, which involves several inflammatory cells and multiple mediators that result in characteristic patho physiological changes. The main physiological feature of asthma is episodic airway obstruction characterized by airflow limitation. However the dominant pathological feature is airway inflammation associated with bronchial hyper responsiveness that leads to recurrent episodes of wheezing, breathlessness, chest tightness, and coughing, particularly at night or in the early morning (*Gina, २००१*).

For some patients, the development of chronic inflammation may be associated with permanent alterations in the airway structure referred to as airway remodeling that are not prevented by or fully responsive to currently available treatments (*Holgate and Polosa, २००६*). Therefore, the paradigm of asthma has been expanded over the last 10 years from bronchospasm and airway Inflammation to include airway remodeling in some persons (*Busse and Lemanske, २००१*).

About ३00 million people have asthma worldwide, and the prevalence has increased over recent decades mainly among children living in industrialized countries and may also be increasing in developing countries (*Masoli et al., २००६*)

Asthma occurs at high frequency in young and older adults. Several factors that influence the prevalence of asthma include obesity, atopy and allergic rhinitis, genetic, family history, exposure to allergens at an early age, and smoking history. Tobacco smoking makes asthma more difficult to control, results in more frequent exacerbations and hospital admission, and produces a more rapid decline in lung function and increased risk of death (*Thomson et al.*, ۲۰۰۴).

Acute asthma is the ۱۱th most frequent condition seen in the emergency department representing up to ۱۲% of total cases. Approximately, ۳۰% of patients with acute asthma are ultimately hospitalized, and ۴% to ۷% of admitted patients required care in the intensive care unit (*Rodrigo et al.*, ۲۰۰۴).

For initiating treatment, asthma severity should be classified, and the initial treatment should correspond to the appropriate category of severity. Once treatment is established, the emphasis is on assessing asthma control to determine if the goals for therapy have been met and if adjustments in therapy would be appropriate. When asthma is not controlled it is associated with significant asthma burden (*Fuhlbrigge et al.*, ۲۰۰۲), decreased quality of life (*Schatz et al.*, ۲۰۰۵), and increased health care utilization (*Vollmer et al.*, ۲۰۰۲ and *Schatz et al.*, ۲۰۰۵).

Quality of life, perceptions of asthma control, and depression are psychosocial factors worth assessing over time,

because they may affect directly the ability to engage in self-management of asthma and affect indirectly asthma morbidity and mortality outcomes. Both asthma specific and generic quality of life measures are associated with patients' perceived control of asthma (*Katz et al., 2007*).