Assessment of Asthma Control in Asthmatic Patients in Ain Shams Pediatric Chest Clinic

Thesis
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قَالُوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إِلاَّ مَا عَلَّمْتَنَا إِنَّكَ أَنتَ الْعَلِيمُ الْحَكِيمُ

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Acknowledgment

List of Contents

List of Figures

List of Figures *(Cont.)*

List of Figures *(Cont.)*

List of Tables

List of Tables *(Cont.)*

	parameters	

List of Abbreviation

Abbrev.	
AAT	Alpha-١-antitrypsin
ACQ	Asthma Control questionnaire
C-ACT	Childhood Asthma Control Test
BAL	Broncho Alveolar Lavage
BOOP	Bronchitis oblitran-organizing pneumonia
BPD	Broncho-pulmonary dysplasia
CD	Cluster of differentiation
CF	Cystic fibrosis
CHF	Congestive heart failure
CIR	Clinical Improvement Registry
COPD	Chronic obstructive pulmonary disease
DPI	Dry powder inhaler.
ECG	Electrocardiogram
ED	Emergency Department
EIB	Exercise-induced bronchospasm
ETS	Environmental tobacco smoke
FEF٢٥-٧٥	Forced expiratory flow rate over ٢٥-٧٥٪ part of FVC
FEV١	Forced expiratory volume in first second
FVC	Forced vital capacity
GERD	Gastro-esophageal reflux disease

List of Abbreviation *(Cont.)*

Abbrev.	
HDM	House dust mites
GINA	Global Initiative for Asthma
ICS	Inhaled CorticoSteriode
IFN	Interferon
IgE	Immunoglobulin E
IL	Interleukin
LABA	Long Acting B٢ Agonist
LTRA	Leukotriene receptor antagonists
MDI	Meter-dose inhaler
MMCPHO	Maine Medical Center Physician Hospital Organization
mRNA	Messenger RNA
NHLBI	National Heart, Lung, and Blood Institute
NK	Natural killer cells
O٣	Ozone
PAs	Physician assistants
Pco٢	Pressure of carbon dioxide
PEFR	Peak Expiratory Flow Rate
PFTs	Pulmonary function tests
RSV	Respiratory syncytial virus
SABA	Short Acting B٢ Agonist
SES	Socioeconomic state

List of Abbreviation (Cont.)

Abbrev.	
SO$_2$	Sulpher dioxide
Th	T helper
TIM	T-cell immunoglobulin mucin
TNF	Tumor necrosis factor
VC	Vital capacity
VCD	Vocal cord dysfunction
WHO	World Health Organization

Assessment of asthma control in asthmatic patients in Ain Shams pediatric chest clinic

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Abstract

__BACKGROUND:__ The goal of asthma therapy is to achieve an optimal level of disease control, asthma control can be assessed using the validated asthma control test, measures of airway function, and overall assessment of risk and quality of life. The Childhood Asthma Control Test (C-ACT) has been proposed as a tool in assessing the level of disease control in asthmatic children.

__OBJECTIVE:__ The aim of this study was to evaluate asthma control in asthmatic patients in Ain Shams Pediatric chest clinic & analysis of the factors involved in uncontrolled asthma.

__SUBJECT AND METHOD:__ we evaluated ١٠٥ Asthmatic children , known and treated for bronchial asthma, and collected general data, medical history, disease onset, peak flowmeter, treatment, and asthma control test (ACT).

__RESULTS:__ Uncontrolled asthma (ACT<٢٠) was recorded in ٦٦,٧٪, predictors for uncontrolled BA: bad ventilation, low SC class, presence of cough and dyspnea, false technique, poor compliance, +ve family history of bronchial asthma and repeated visits to ED with exacerbation. Peak expiratory flow rate (PEFR)- not ACT- was significantly positively correlated with age, weight, duration of illness and ACT.

__CONCLUSIONS:__ About ٢/٣ (٦٦,٧٪) of treated asthmatic patients had uncontrolled asthma. The major factors leading to poor asthma control are low SES, poor knowledge and poor compliance of the patients.

INTRODUCTION

Asthma is a common chronic respiratory disease with prevalence of ١٣٪ of the world's population, and this prevalence is still rising **(National Heart, Lung and Blood Institute, ٢٠٠٥).**

By achieving optimal control of asthma, the risk of life-threatening exacerbations and severe morbidity can be greatly reduced. Therefore, achieving respiratory symptom control is one of the main targets in the management of patients with asthma.

The Global Initiative for Asthma **(GINA)** guidelines specify a number of goals for the long-term management of asthma.

Among these, are minimal chronic symptoms – including: nocturnal symptoms – minimal need for as-required β٢ agonists and no limitations to daily activities. These treatment objectives are also pursued in (primary care) guidelines.

However, despite the availability of highly effective pharmacotherapy, poorly controlled asthma is reported in up to ٧٠-٩٥٪ of patients in Western Europe and the Asian-Pacific region **(Rabe et al., ٢٠٠٠).**