PRE AND POSTOPERATIVE NASAL AND BRONCHIAL HISTOPATHOLOGICAL CHANGES IN ASTHMATIC PATIENTS WITH NASAL ABNORMALITIES

Thesis

Submitted for the partial fulfillment
of the M.D. degree

OTORHINO-LARYNGOLOGY

By

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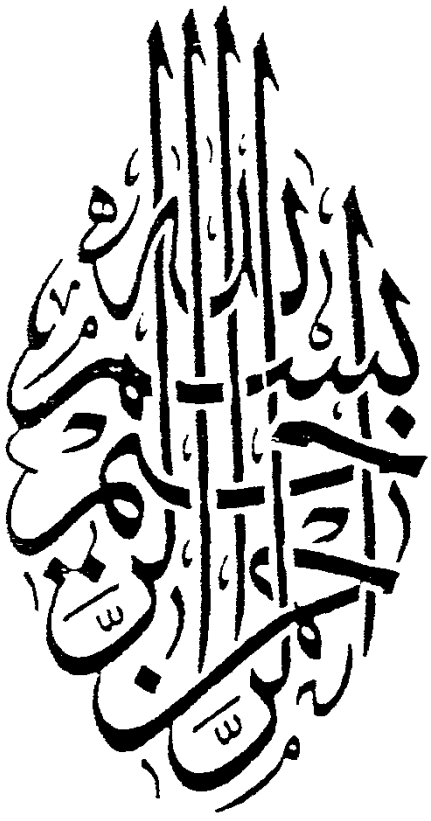

وَعَلَّمَكَ مَا لَمْ تَكُن تَعْلَمُ

وَكَانَ فَضْلُ اللَّـهِ عَلَيْكَ عَظِيمًا

صدق الله العظيم

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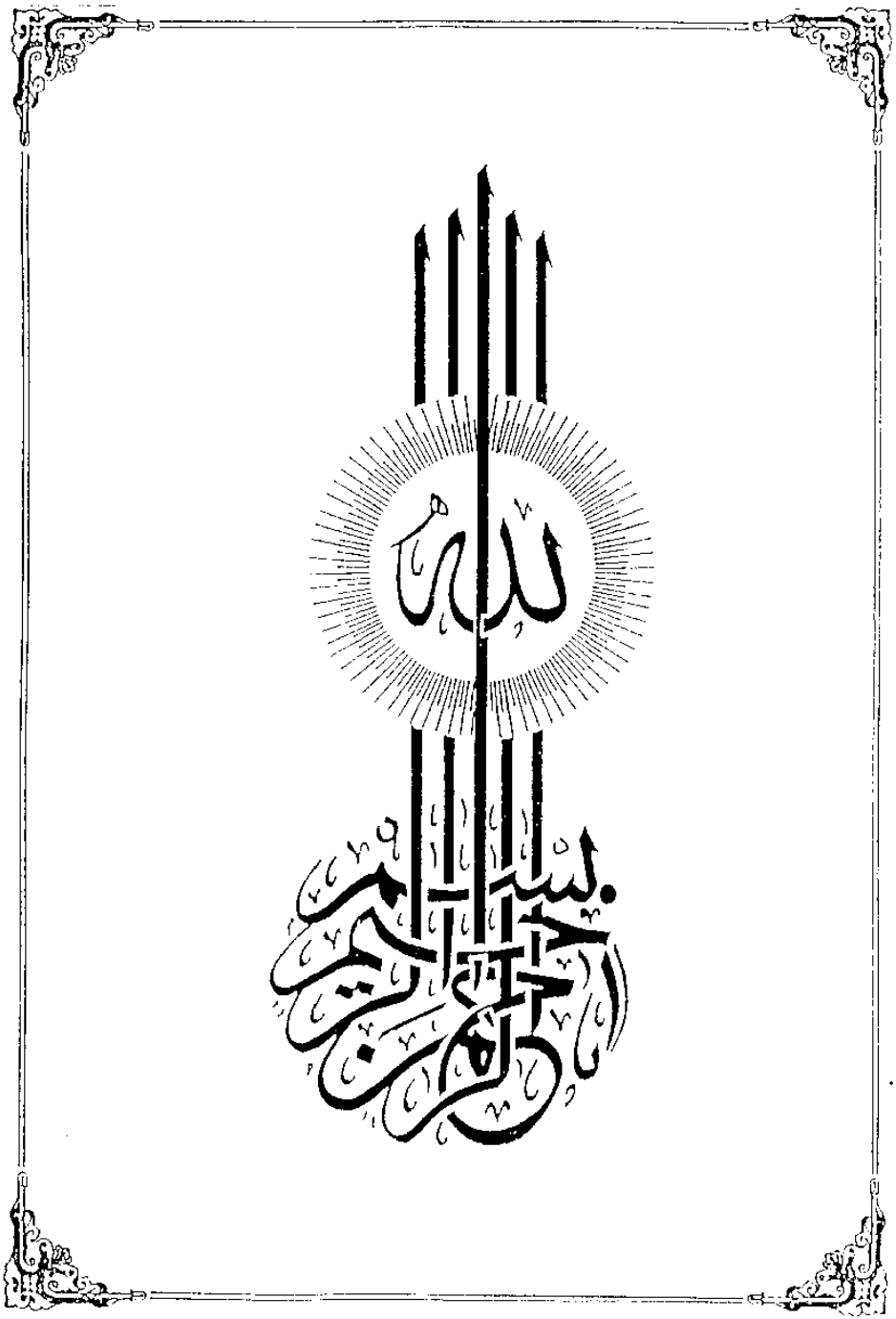

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C O N T E N T S

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INTRODCUTION

INTRODUCTION

The nose and the upper air passages are the first line of defence of the respiratory system against airborne particulates and irritants and play a major role in respiratory heat exchange. During these activities, the nose regulates airflow resistance in series with the tracheobronchial tree. It is proved clinically and by animal experiments that there is an "asthmagenic" area in the ethmoid region of the nose and that nasal and paranasal sinuses abnormalities in the form of deviated nasal septum, nasal polypi, and sinusitis are common in asthmatic patients (Unno, et al., 1968; Ogura and Harvey, 1971; Rachelefsky, 1984 and McFadden, 1986). Any form of nasal obstruction by favouring mouth breathing, can lead to alteration in nasal function and enterance of unconditioned air into the bronchi which have direct and/or reflex effects on lower airway performance and aggravation of asthmatic symptoms. Recently, the similarity in the nasal and bronchial histopathological changes in the form of thickening of the basement membrane and appearance of goblet cells and basal cell hyperplasia and areas of damage in the epithleium, makes the relationship between asthma and pathology of the nose and para-nasal sinuses more accepted and never questioned (Kantelip, et al., 1984 and English, et al., 1987).

The nose is an important organ that deserves more consideration than it commonly receives. It is one of the body's most important protectors against unfavourable enviroments. Nasal obstruction can disturb the whole body systems, it can adversely affect the pulmonary, the cardiac, the nervous, and the autonomic systems, also the sleep rhythm, the digestive and metabolic processes. It can ever lead to structural deformities of the face and thoracic cage. Also it may lead to sudden death from suffocation or cardiac accident. This is beside the behavioural changes of the patient and social troubles.

In an era in which an ever increasing number of scientific studies and publications have been devoted to airborne occupational hazards and airborne pollutants, a basic understanding of the anatomical structure of the nose and the resulting pattern of respiratory airflow through it, the efficacy with which particulates are deposited or gases absorped within it, the disposal of these materials through mucociliary activity is important.

AIM OF THE WORK