Cross Reactivity Between Horse and Donkey Danders And Its Clinical Significance In Clinical Inhalant Allergy

Thesis
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Medicine

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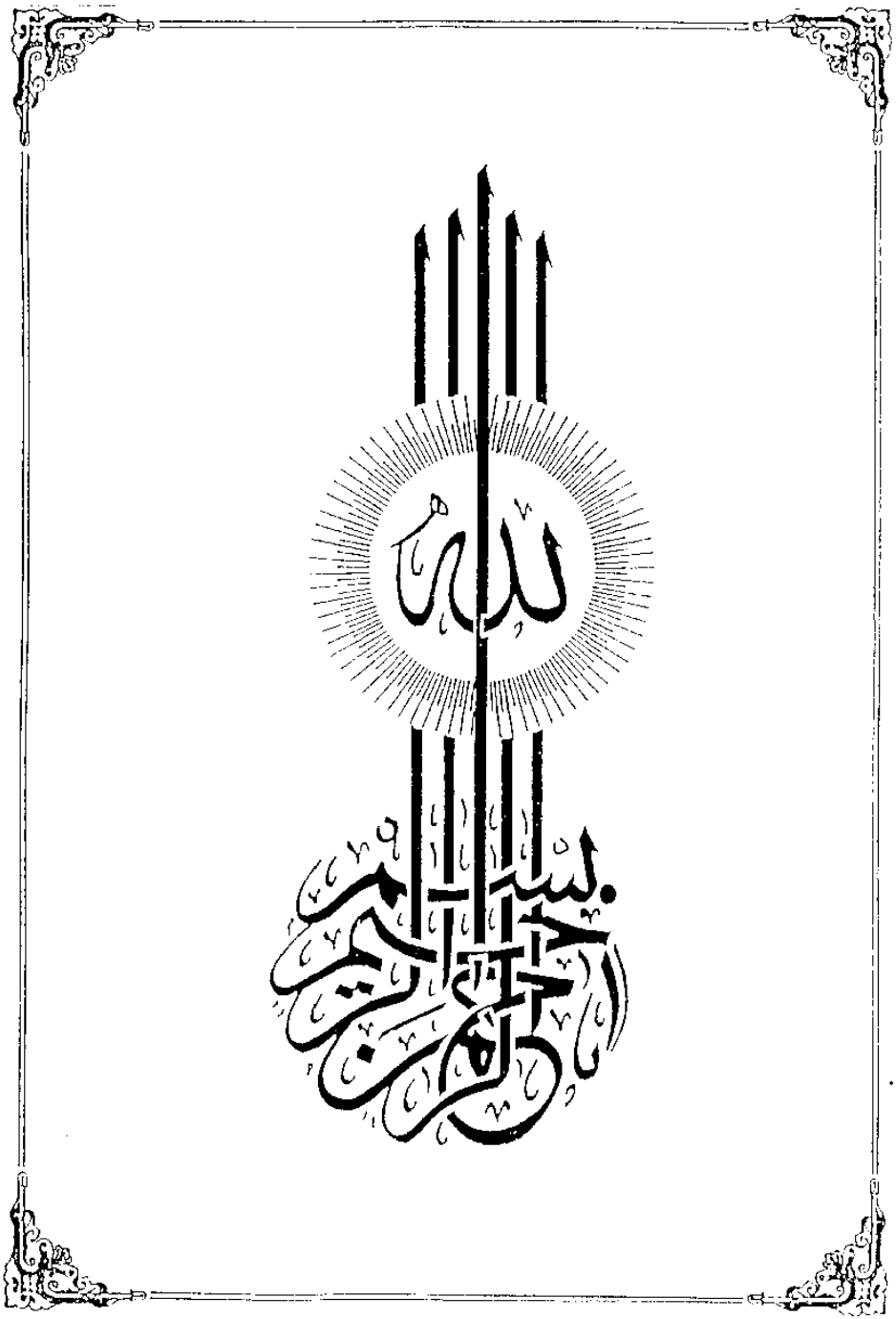
قالوا سبحانك لا علم لنا إلا ما علمتنا
ما علمتنا إنك أنت العليم الحكيم

صدق الله العظيم

سورة البقرة – الأية رقم (٣٢)



Dedication

To the soul of my father

To my mother

To my sisters

And to my brother

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ABBREVIATIONS

ASA	Acetyl Salicylic acid
ABPA	Allergic Bronchopulmonary Aspergillosis
AMP	Adenosine monophosphate
ATP	Adenosine triphosphate
BAL	Broncho-alveolar lavage
BHR	Bronchial hyperreactivity
BPC	Bronchoprovocation challenge
BPT	Bronchoprovocation test
c-AMP	Cyclic - Adenosine monophosphate
cGMP	Cyclic - Guanidine monophosphate
ECF-A	Eosinophil chemotactic factor of anaphylaxis
ECP	Eosinophil cationic protein
EIA	Exercise-induced asthma
EPO	Eosinophil peroxidase
FEV_1	Forced expiratory volume in one second
GTP	Guanidine triphosphate
HPETEs	Hydroperoxyeicosatetraenoic acids.
IF-A	Inflammatory factors of anaphylaxis
IL-5	Interleukin - 5
LTE_4	Leukotriene E_4
LTC_4	Leukotriene C_4
LTD_4	Leukotriene D_4
MBP	Major basic protein
METEs	Monohydroxyeicosatetraenoic acids
NCF	Neutrophil chemotactic factor
NSAIDs	Non-steroidal anti-inflammatory drugs
PAF	Platelet(s) activating factor
PHI	Peptide histidine isoleucine
PHM	Peptide histidine methionine
PCO_2	Partial carbon dioxide concentration
PEFR	Peak expiratory flow rate
PGE_2	Prostaglandin E_2
PGs	Prostaglandins
PGF-A	Prostaglandin-generating factor of anaphylaxis
PGF_{2a}	Prostaglandin F_{2a}
PO_2	Partial oxygen concentration
RAST	Radio-allergen - sorbent test
SPT	Skin prick test
TDI	Toluene di-isocyanate

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Introduction & Aim of the Work

INTRODUCTION

Unlike so many diseases which can be attributed to the life style of modern man, asthma is a very ancient illness (*Hannaway,* 1989).

Asthma changes the quality of life of patients whatever is their age, and is an important cause of lost working days. The costs due to asthma are steadily mounting. The WHO draw maximum public attention to this disease and take measures for its control and prevention (*Michel et al.,* 1995).

Many animal species have been implicated as causes of human allergy. In most instances, the allergens emanating from these animals are air borne and produce respiratory reactions such as asthma and rhinoconjunctivitis (*Ohman,* 1985).

In Egypt, horse allergy is encountered among farmers in horse breeding areas and some workers in horse stalls, among police or military personnel participating in horse - riding training programs and among workers in the touristic field who expose intermittently to horses.

Because horses, donkeys and mules are wide spread in our Egyptian society, particularly in rural areas; the topic is important in the practice of allergy.

AIM OF THE WORK :-

The aim is to explore :-

* The allergenic potentiality of donkey dander and its role as an inhalant allergen.

* The possibility of cross antigenicity between horse and donkey danders.

Review of Literature

REVIEW OF LITERATURE
BRONCHIAL ASTHMA

*** Magnitude of the problem :-**

Bronchial asthma is increasingly becoming a public health problem in the developing world. Its incidence continues to rise throughout the world and, indeed, it has been increased by approximately 50% over the last ten years.

The severity of asthma is also increasing as is witnessed by the higher levels of hospitalization of sufferers (*Michel et al.*, 1995).

*** Psycho-social implications of asthma :-**

Although often ignored or overlooked, the psychosocial consequences of asthma are as important as its physiological effects. Because attacks frequently occur without warning, many asthmatics feel frightened, anxious or fearful of dying (*Miller*, 1987 and *Frank*, 1989) - feelings labeled "panic-fear" by some researchers (*Thompson and Thompson*, 1985).

As a result, asthmatics tend to avoid physical activities, sleep poorly and miss more school than non- asthmatics (*Rosendahl*, 1989).

Psycho-social factors may also play an important role in asthma mortality. In several recent studies, depression,