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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم

PLASMA INTERLEUKIN-8 AND ENDOTHELIN-1 CONCENTRATIONS IN SYMPTOMATIC AND ASYMPTOMATIC ASTHMATIC CHILDREN

Thesis

Submitted for the degree of Ph. D. Childhood studies Institute of postgraduate for Childhood studies Ain Shams University

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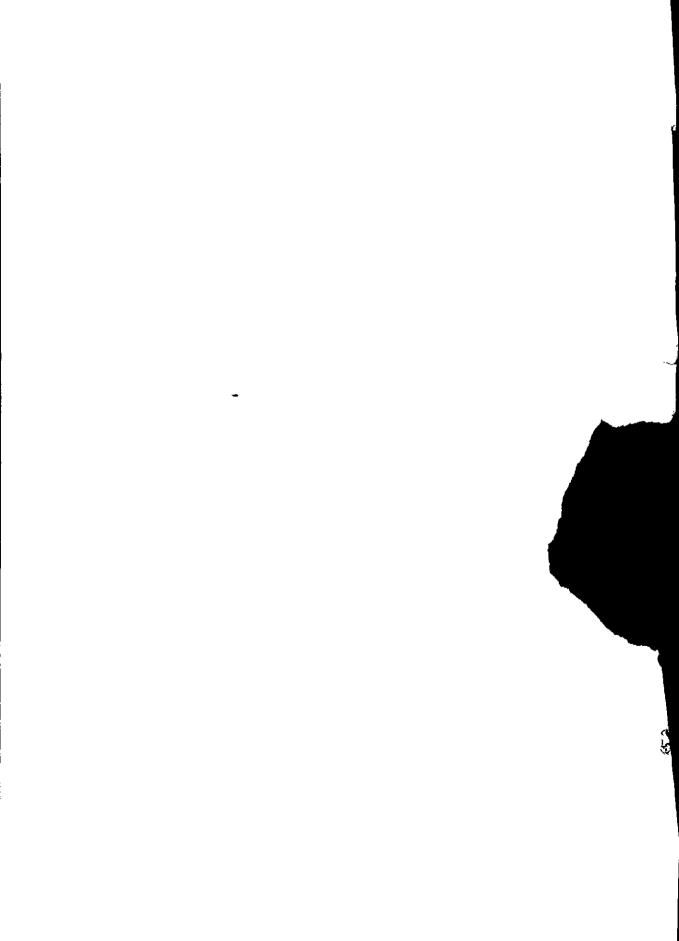
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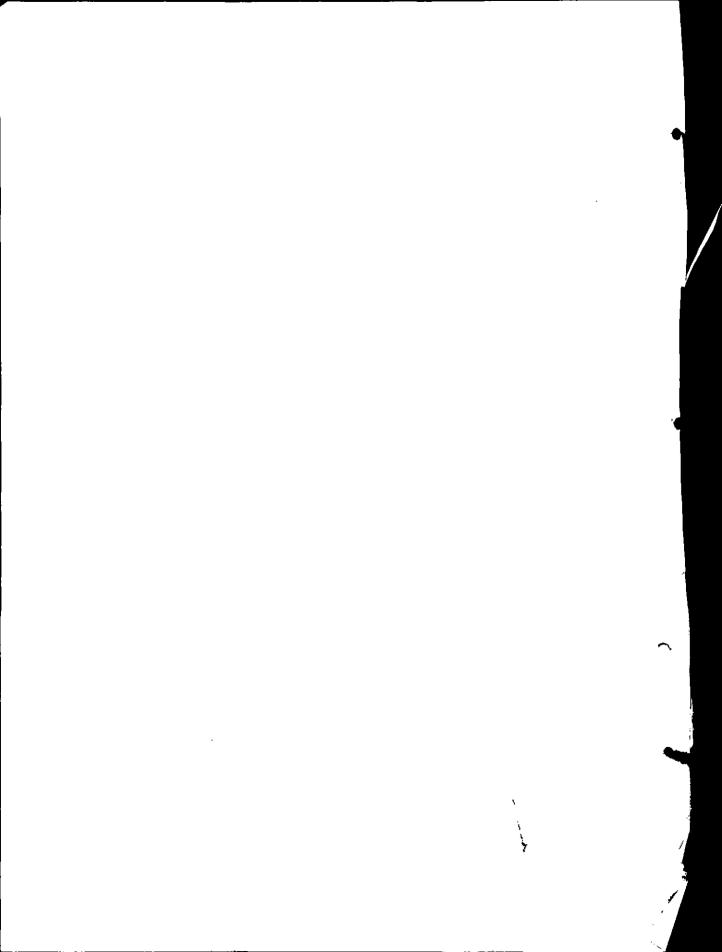
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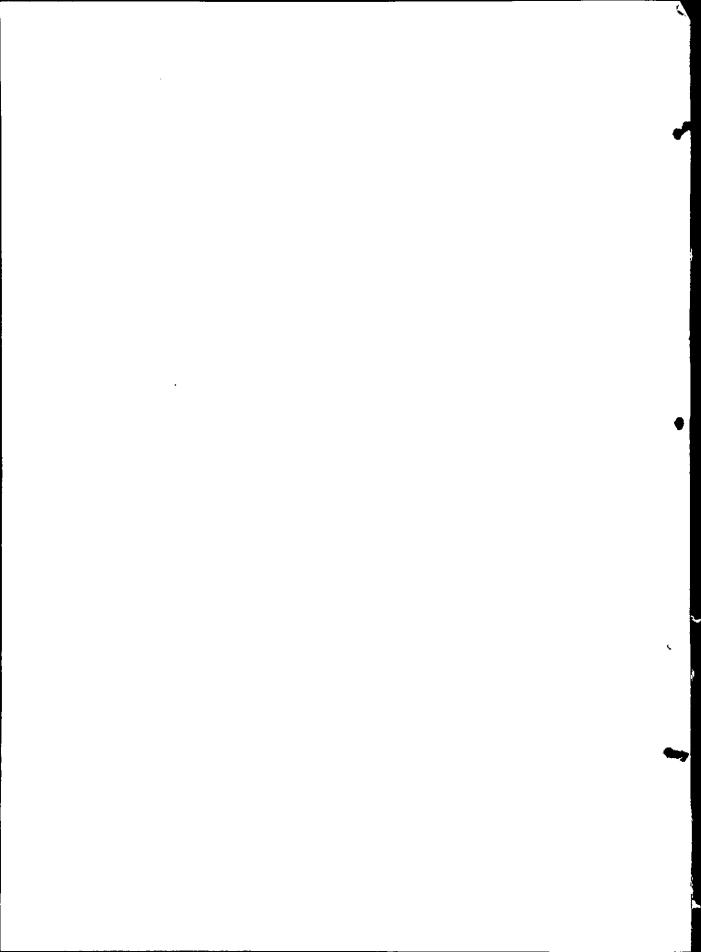
Thank you all, Amr Ibrahim Ali



ABSTRACT

Two asthmatic groups each included 20 patients, the asymptomatic group where patients were free of symptoms, the symptomatic group where patients were suffering from acute exacerbation of their asthma and both of asthmatic groups were subclassified into mild and moderate subgroups each of 10 patients according asthma severity. All subjects were subjected to clinical study, X-ray for subclassification of patients, peak chest expiratory flow rate (PEFR) recording classification of patients, skin prick testing using common allergens (patients only) and laboratory investigations which included complete blood count (CBC) including eosinophil count (AEC), urine and stool examination, total serum IgE level, plasma IL-8 level and plasma endothelin-I level. There was no significant difference between the study groups as regards AEC. There was a highly significant elevation in serum IgE of the asthmatic groups in comparison to control group. There was a highly significant elevation in plasma endothelin-1 and plasma IL-8 levels of the symptomatic asthmatic subgroups in comparison to control group and asymptomatic asthmatic subgroups. In conclusion: despite this profile, a causal link between IL-8, ET-1 and asthma has not been definitively established, but surely, it is now clear that those mediators, their receptors, synthesis and degradation pathways offer potentially important therapeutic targets.

Keywords: Bronchial asthma, Interleukin-8, Endothelin-1, Immunoglobulin-E and Absolute cosinophilic count.



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LIST OF ABBREVIATIONS

AEC Absolute eosiophilic count.

Ala Alanine.
Asp Aspartate.

BAL Bronchial fluid lavage. β-TG β-thromboglobulin.

Ca⁺⁺ . Calcium ion.

cDNA Recommbinant DNA

C.H Cat hair.

Con A Concanavalin A.

CTAP-III Connective tissue activating

peptide III.

DMSO Dimethyl sulphoxide. dsRNA Double-stranded RNA.

EASIA Enzyme Amplified Sensitivity

Immunoassay.

EDRF Endothelium derived relaxing

factor.

ET Endothelin

FMLP Formylmethonyl-ieucyl-

phenylalanine.

FMLP Formylmethionyl peptides.

Frs Feathers.
Glu Glutamine.

GM-CSF Granulocyte-Monocyte Colony.

Stimulating Factor.

Gss Grass

GTP Glutamine triphosphate.

H.D House dust.

H.D.M House dust mite.

HRP Horseradish peroxidase.

ICAM-1 Interacellular adhesion

molecule-1.

IFN Interferon.

IgE Immunoglobulin E. IgG Immunoglobulin G.

IL Interleukin Kilo dalton

LAI Leukocyte adhesion inhibitor.
LAMMA NG-monomethly-L-arginine.
LA-PF4 Low-affinity platelet factor-4.

LAR Late asthmatic response.

LPS Lipopolysaccharid.

LTC4 Leukotrein-4

MCAF Macrophage chemoattractant

and activating factor.

MEIA Microparticle enzyme

immunoassay.

MGSA Melanoma growth-stimulatory

activity.

MIP Macrophage inflammatory

protein.

MK Milk.

M.M Mixed moulds.
M.P Mixed pollen.
mRNA Messenger RNA

NAN Nocturnal airway narrowing.
NAP-1 Neutrophil-activating protein.

NK cells Natural killer cells.

PAF Platelet activating factor.
PBP Platelet basic protein.

PDGF Platele derived growth factor.
PEFR Peak expiratory flow rate.

PGD Prostaglandin
PF4 Platelet factor 4.

PHA Phytohaemagglutinin, **PMA** Phorbol 12-myristate 13-acetate ppET Prepro-endothelin.

SEA Staphylococcus enterotoxin A. TGF-β Transforming growth factor-β. TNF

Tumour necrosis factor.

TPA Tetradecanoylphorbol13-acetate VCAM-1 Vascular adhesion molecule-1 VIC Vasoacative intestinal constrictor WL

Wool.

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