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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
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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, chest X-ray for subclassification of patients, peak expiratory flow rate (PEFR) recording for sub-classification of patients, skin prick testing using common allergens (patients only) and laboratory investigations which included complete blood count (CBC) including absolute eosinophil count (AEC), urine and stool examination, total serum IgE level, plasma IL-8 level and plasma endothelin-1 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 eosinophilic 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
Kd	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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