Assessment of PH and Chloride levels in exhaled breath condensate of children with chronic pulmonary illness

Thesis

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By

Azza Mohey Eldin Ebrahim

(M.B.B.CH.)

Ain Shams University (2006)

Under Supervision of

Prof. Dr./ Karima Ahmed Abdel-khalek

Professor of Pediatrics

Faculty of Medicine - Ain Shams University

Prof. Dr./ Eman Mahmoud Fouda

Professor of Pediatrics

Faculty of Medicine - Ain Shams University

Faculty of Medicine

Ain Shams University

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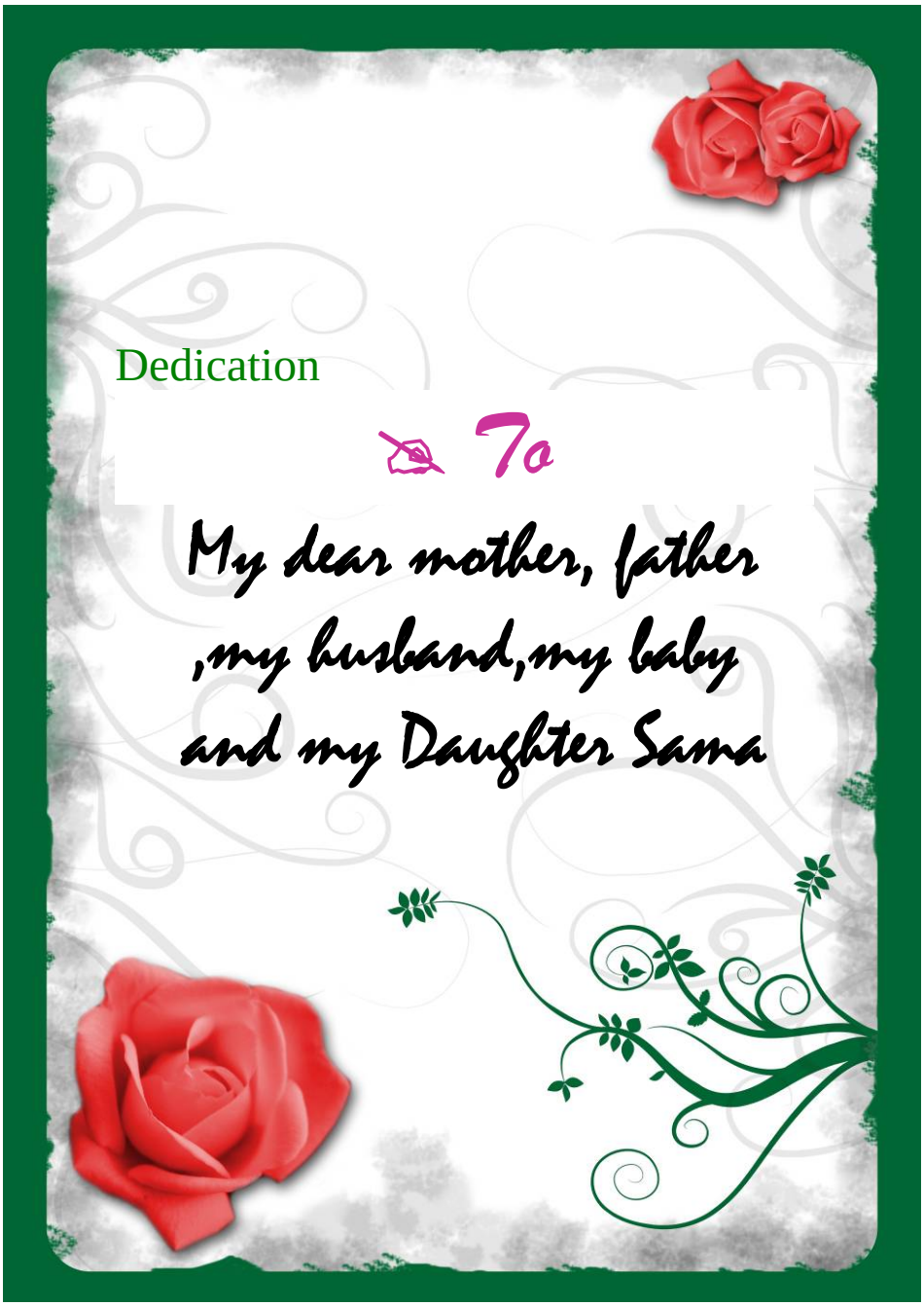
Dedication
To
My dear mother, father
,my husband,my baby
and my Daughter Sama

Acknowledgment

At first, I would like to thank ALLAH who gave me the ability to finish this work.

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﴿وفي أنفسكم أفلا تبصرون﴾

صدق الله العظيم

سورة الذاريات الآية (٢١)

List of Abbreviations

AHR	:	Airway Hyper responsiveness
AOX	:	Adsorbed-organic-halogen technique
API	:	Asthma predictive index
ASL	:	Airway surface lining fluid
ATS	:	American Thoracic Society
BAL	:	Bronchoalveolar lavage
CF	:	Cystic fibrosis
ChILD	:	Children's interstitial lung disease
CL	:	Chloride
CLD	:	Chronic lung disease
CO	:	Carbon monoxide
Co_2	:	Carbon dioxide
COPD	:	Chronic obstructive pulmonary disease
CXR	:	Chest x ray
Cys LTs	:	Cysteinyl leukotrienes
DALYS	:	Disability-adjusted life years
DLCO	:	Diffusion capacity of the lung to carbon monoxide
DPPC	:	Dipalmitoylphosphatidylcholine
EBC	:	Exhaled breath condensate
ECM	:	Extracellular matrix
ECP	:	Eosinophil cationic protein
ELF	:	Epithelial lining fluid
ELISA	:	Enzyme-linked immunosorbent assay
EPX	:	Eosinophil protein X
ERS	:	European Respiratory Society
FcεRI	:	Fc epsilon RI (high affinity IgE receptor)

Fe_{NO}	**:**	Fractional exhaled nitric oxide
FEV1	**:**	Forced expiratory volume in the first second.
FVC	**:**	Forced vital capacity
GINA	**:**	Global initiative for asthma
GSH	**:**	Glutathione
H_2O_2	**:**	Hydrogen Peroxide
HCO_3^-	**:**	Bicarbonate
HRCT	**:**	High Resolution CT
ICS	**:**	Inhaled corticosteroids
IFN γ	**:**	Interferon γ
IgA	**:**	Immunoglobulin A
IgE	**:**	Immunoglobulin E
IL	**:**	Interleukin
ILD	**:**	Interstitial lung disease
IOS	**:**	Impulse oscillometry
IPF	**:**	Interstitial pulmonary fibrosis
IU	**:**	International unit
LTE4	**:**	Leukotriene E4
MDC	**:**	Macrophage-derived chemokines
MDIs	**:**	Metered-Dose inhaler
MMEFR	**:**	Maximal mid expiratory flow rate
NAEPP	**:**	National Asthma Education and Prevention Program
NF-kB	**:**	Nuclear Factor Kappa B
NH_4^+	**:**	Ammonia
NO	**:**	Nitrogen oxide
NOS	**:**	Nitric oxide synthase

PCD	**:**	Primary ciliary dyskinesia
PCP	**:**	Pneumocystis Carnii pneumonia
PEFR	**:**	Peak expiratory flow rate
PR	**:**	Pulmonary rehabilitation
RSV	**:**	Respiratory syncytial virus
RV	**:**	Residual volume
SD	**:**	Standard Deviation
sRAGE	**:**	Soluble Receptor for Advanced Glycation End Produc
TARC	**:**	Thymus and activation regulated chemokines
Th1	**:**	T-helper 1
Th2	**:**	T-helper 2
TLC	**:**	Total lung capacity
TLC	**:**	Total leukocytic count
TNF-α	**:**	Tumor necrosis factor-α
ULTE4	**:**	Urinary leukotriene E4
VEGF	**:**	Vascular endothelial growth factor
VOC	**:**	Volatile organic compounds
WHO		World Health Organization

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