



Iron Deficiency Anemia and its association to Childhood Asthma

Thesis

*Submitted for Fulfillment of Master Degree In
Pediatrics*

By

Noha Reyad Ibrahim Reyad

M.B; B.Ch. 2014

Supervised by

Prof. Tharwat Ezzat Deraz

Professor of Pediatrics

Faculty of Medicine-Ain Shams University

Dr. Asmaa Al Hussein Ahmed

Assistant Professor of Pediatrics

Faculty of Medicine-Ain Shams University

Dr. Heba Allah Ahmed Ali

Lecturer of Pediatrics

Faculty of Medicine-Ain Shams University

Dr. Yasser Hassan Mohammed

Lecturer of Pediatrics

Faculty of Medicine-Misr University

*Faculty of Medicine
Ain Shams University
2019*

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

سورة البقرة الآية: ٣٢

Acknowledgment

*First and foremost, I feel always indebted to **ALLAH**, the Most Kind and Most Merciful.*

*I'd like to express my respectful thanks and profound gratitude to **Prof. Tharwat Ezzat Deraz**, Professor of Pediatrics Faculty of Medicine-Ain Shams University for his keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

*I am also delighted to express my deepest gratitude and thanks to **Dr. Asmaa Al Hussein Ahmed**, Assistant Professor of Pediatrics Faculty of Medicine-Ain Shams University, for her great help, active participation and guidance.*

*I am deeply thankful to **Dr. Heba Allah Ahmed Ali**, Lecturer of Pediatrics Faculty of Medicine-Ain Shams University, for her kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

*I wish to introduce my deep respect and thanks to **Dr. Yasser Hassan Mohammed**, Lecturer of Pediatrics Faculty of Medicine-Misr University, for his kindness, supervision and cooperation in this work.*

Noha Reyad

Dedication

This work is dedicated to...

My beloved father (Mr Reyad), to whom I owe everything I ever did in my life and will achieve and making me the man, I am now.

My Mother (Mis Salwa Darwish) for always being there for me.

And also for My Brother (Dr. Ahmed Reyad) for his support and encouragement.

Finally, My Sister & Friend (Dr. Tasnim Reyad) for her support and continuous encouragement from step to other higher step.

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List of Abbreviations

Abb.	Full term
AAP.....	American Academy of Pediatrics
ACD.....	Anemia of Chronic Disease
ACQ.....	Asthma Control Questionnaire
AD.....	Atopic dermatitis
ADAM33.....	A disintegrin and metalloproteinase 33
ADHD.....	attention-deficit/hyperactivity disorder
AHR.....	Airway hyper-response
APCs.....	antigen-presenting cell
API.....	Asthma Predictive Index
AR.....	Allergic rhinitis
ATS/ERS.....	American Thoracic Society/European Respiratory Society
BA.....	Bronchial Asthma
BDR.....	Bronchodilator response
BHR.....	Bronchial hyperresponsiveness
BMI.....	Body Mass Index
BTS/SIGN.....	British Thoracic Society/Scottish Intercollegiate Guidelines Network
cAMP.....	Cyclic adenosine monophosphate
CBC.....	Complete Blood Count
CDC.....	Centers for Disease Control
CF.....	Cystic Fibrosis
CFC.....	Chlorofluorocarbon
CMV.....	Cytomegallovirus
COX-1.....	Cyclooxygenase enzyme 1
CRP.....	C-reactive protein
CS.....	Corticosteroid
CT.....	computed tomography

List of Abbreviations Cont...

Abb.	Full term
CXR.....	Chest x-ray
CysLTs	Cysteinyl LTs
DNA.....	Diauxic ribonuclease acid
DPI.....	Dry-powder inhaler;
DPP10	Dipeptidyl peptidase
EAR	Early asthmatic response
ED	Emergency department
EIB.....	Exercise-Induced Bronchospasm
ERCP	Endoscopic retrograde pancreatography
ERV	Expiratory reserve volume
ETS	Environmental Tobacco Smoke
FA	Food allergy
FEF	Forced Expiratory Flow
FEP	Free Erythrocyte Protoporphyrin
FEP	Free erythrocyte protoporphyrin
FEV1.....	Forced Expiratory Volume in The First Second
FOT.....	Forced Oscillation Technique
FRC.....	Functional Residual capacity
FVC	Forced Vital Capacity
GERD	Gastroesophageal reflux disease
GI	Gastrointestinal
GI	Gastro-Intestinal
GINA	Global Initiative for Asthma
GM-CSF	Granulocyte macrophage colony stimulating factor
H	Histamin
Hb	Hemoglobin
HCT	Hematocrit

List of Abbreviations Cont...

Abb.	Full term
HFA	Hydrofluoroalkane
HIV	Human immunodeficiency virus
Hr	Hour
HS	Highly Significant
IBD	Inflammatory bowel disease
ICS	Inhaled Corticosteroid
ID	Iron-Deficiency
IDA	Iron-Deficiency Anemia
IgE	Immunoglobulin E
IL6R.....	Interleukin 6 Receptor
IOM.....	Institute of Medicine
IOM.....	The Institute of Medicine
IOS.....	Impulse oscillometry
IOS.....	Impulse oscillometry
IQ	Intelligence quotient
ISAAC	International Study of Asthma and Allergies in Childhood
LABA	Long Acting Beta Agonist
LAR.....	late asthmatic response
LMIC	Low and middle income countries
LOX5	Lipoxygenase 5
LRTI	Lower Respiratory Tract Infections
LTRA	Leukotriene Receptor Antagonist
LTRAs	Leukotriene receptor antagonist
LTs.....	Leukotrienes
MCHC.....	Mean Corpuscular Hemoglobin Concentration
MCV.....	Mean Corpuscular Volume
MRI.....	Magnetic resonance imaging

List of Abbreviations Cont...

Abb.	Full term
NAEPP	National Asthma Education and Prevention Program
NaFeEDTA,	Sodium Ferredetaten Ethylene Diamine Tetra Acetic
No.....	Number
NPPV	Non-invasive positive pressure ventilation
NSAIDs	Non Steroidal Anti-inflammatory Drugs
NSAIDs	Nonsteroidal anti-inflammatory drugs
O ₂	Oxygen
OCD	Obsessive Compulsive Disorder
PFTs	Pulmonary Function Tests
PHF11	plant homeodomain finger protein 11
PO	Per Oral
RBCs.....	Red Blood Cells
RBCs.....	Red blood cells
RDW	Red Cell Distribution Width
RDW	Red cell distribution width
RSV.....	Respiratory Syncytial Virus
RV	Residual volume
SA	South Africa
SABA	Short Acting Beta Agonist
SD	Standard Deviation
SF	Serum Ferritin
TfR	Transferrin receptor
TfR1	Transferring Receptor 1
TIBC	Total Iron Binding Capacity
TIBC	Total iron-binding capacity
TNF:	Tumor necrotizing factor

List of Abbreviations Cont...

Abb.	Full term
URIs.....	Upper Respiratory Infections
URTI	Upper Respiratory Tract Infection
USA	United State of America
WHO.....	World Health Organization
