

Anthropometric Assessment and Growth Hormone Study of Malnourished Children

THESIS

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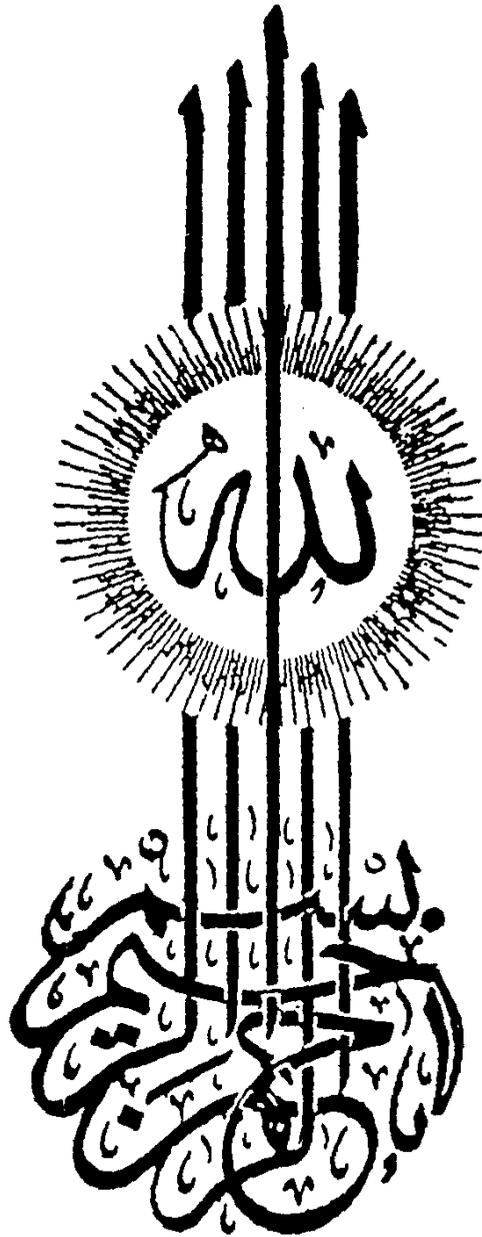
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ

خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ

اقْرَأْ وَرَبُّكَ الْأَكْبَرُ الَّذِي عَلَّمَ الْقُرْآنَ

عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمُ

المتنق ، ١ - ٥

**TO
MY
DEAR
FAMILY**

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LIST OF ABBREVIATIONS

Arginine Hcl	Arginine Hydrochloride
B ₁₂	Cyanocobalamine
C ₃	Complement 3
C ₅	Complement 5
CAMP	Cyclic Adenosine Monophosphate
Cl ⁻	Chloride
Cm	Centimeter
DNA	Deoxyribonucleic Acid
EASIA	Enzyme Amplified Sensitivity Immunoassay
Fig	Figure
GH	Growth Hormone
GHbp	Growth Hormone Binding Protein
GHRF	Growth Hormone Releasing Factor
GHRH	Growth Hormone Releasing Hormone
GIT	Gastrointestinal Tract
HCL	Hydrochloric Acid
hgH	Human Growth Hormone
hGH-v gene	Human Growth Hormone Variant Gene

H ₂ O ₂	Hydrogen Peroxide
HRP	Horse Radish Peroxidase
H ₂ SO ₄	Sulfuric Acid
IgA	Immunoglobulin A
IGf ₁	Insulin Like Growth Factor 1
K ⁺	Potassium
Kcal	Kilo Calories
Kd	Kilo Dalton
Kwo	Kwashiorkor
L-dopa	Levodopa
Mabs	Monoclonal Antibodies
mRNA	Messenger Ribonucleic Acid
Na ⁺	Sodium
PEM	Protein energy malnutrition
RNA	Ribonucleic acid
RPM	Round Per Minute
SRIH	Somatotropin Release Inhibiting Hormone
SS	Hypothalamic Somatostatin
TMB	Tetramethyl Benzydine
WHO	World Health Organization

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**INTRODUCTION
AND
AIM OF THE WORK**

INTRODUCTION

On a global scale, malnutrition is the most common cause of growth failure, with an estimated two thirds of the world's children undernourished (*Grant et al., 1973*).

Protein energy malnutrition is one of the serious health problem in Egypt (*Shukry et al., 1972*). The prevalence of protein energy malnutrition in Egypt was 26-45% (*Abd El-Hamid et al., 1978*).

Undernutrition leads to elevated serum level of growth hormone, with growth hormone pulses occurring episodically through out the day and night and low serum somatomedin C concentration (*Clemmons et al., 1981*).

Nutritional anthropometry is concerned with the measurements of the variation of the physical dimensions and the gross composition of the human body at different age levels and degree of nutrition. Anthropometry appear to be of greatest value in the assessment of growth failure and undernutrition principally from lack of protein and calories (*Jelliffe et al., 1966*).

AIM OF THE WORK

The aim of this work is to study the changes that occur in anthropometric measurements and level of growth hormone before and after provocation in cases of malnutrition during illness and after recovery.

REVIEW OF LITERATURE