ANOREXIA IN PAEDIATRICS

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BY
EBRAHIM MOHAMED ABOU EL SOOUD
M. B. B. CH. (AIN-SHAMS)

SUPERVISOR

PROFESSOR DR., ABD EL KHALEK KHATAB
M. D. (AIN-SHAMS)
Ph. D. (EDIN.)
F. R. C. P. (EDIN.)
F. R. C. P. (GLASG.)

PROFESSOR AND HEAD OF PEDIATRIC DEPARTMENT
AIN-SHAMS UNIVERSITY

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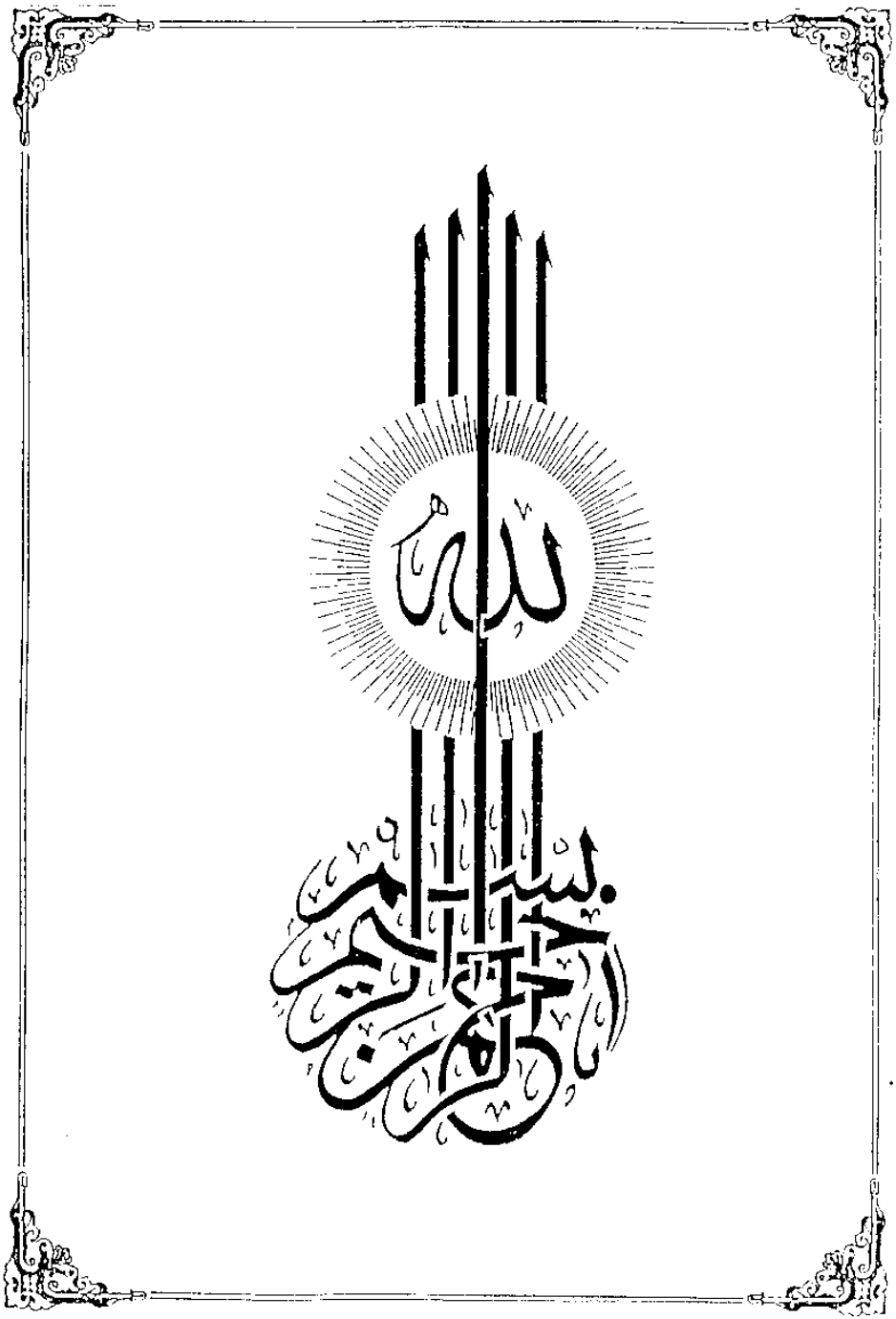
بسم الله الرحمن الرحيم

"وقل رب زدنى علما"

صدق الله العظيم



DEDICATION

To my son,

Mohamed,

ABBREVIATIONS

A.C.T.H.	:	Adrenocorticotrophic hormone.
C.C.K.	:	Cholecystokinin
C.C.K.8	:	Cholecystokinin Octapeptide.
C.R.F.	:	Corticotropin releasing factor
D.S.M.III	:	Third edition of diagnostic and statistic manual of mental disorders.
G / dl	:	Gram per deciltre.
G.A.B.A.	:	Gamma amino buteric acid.
m.c.h.	:	Meam corpuscular hemoglobin.
m.c.h.c	:	Mean corpuscular hemoglobin concentration
m.c.v.	:	Mean corpuscular volume
P.I.	:	Protein index
R.B.C.	:	Red blood cells.
T.R.H.	:	Thyrotropin releasing hormone.
μ^3	:	Cubic microne.
M.G.	:	Microgram.
W.B.C_s	:	White blood cells

ANOREXIA IN PEDIATRICS

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INTRODUCTION

INTRODUCTION AND AIM OF THE ESSAY

Appetite fluctuates enormously in different periods of growth. In periods of rapid growth as in infancy and adolescence, appetite is usually voracious, whereas in the intervening years some children appear to eat almost nothing while growing and gaining weight normally. (Hamilton, 1987).

Appetite is controlled via the feeding and satiety centres present in the lateral and ventremedial nuclei of the hypothalamus respectively. Appetite is also affected by blood levels of glucose, fatty acids and amnioacids. Temperature changes can affect appetite and food intake. (Vick, 1984).

Anorexia, the loss of appetite, is a symptom seen frequently in pediatric practice. Acute illness in childhood is commonly associated with transient anorexia. Prolonged anorexia with poor weight gain

or excess weight loss usually signifies a serious chronic illness either organic or psychogenic. (Ulshem, 1980).

Irritability and anorexia characteristic of advanced cases of iron deficiency anemia may reflect deficiency of tissue iron. With iron therapy, striking improvement inbehavior occurs frequently before significant hematologic improvement. (Pearson, 1987).

The most serious disturbance of eating occurring in childhood is anorexia nervosa. (Wolf and Hersov, 1984).

Death rate in anorexia nervosa is 10%. Most of the current regimens for treatment combine psychotherapy, (individual and family), behavioural modification and nutritional rehabilitation. (Litt, 1987).

In each case of anorexia, a careful dietary history, should be taken and the child is examined

clinically to exclude an underlying organic disease. Ideally, serial determinations of height and weight should be made and growth velocity determined. (Brimblecomb and Balertrop, 1978).

Treatment of anorexia must be directed to the underlying condition. In general, little or nothing is gained by stimulating appetite artificially as long as the underlying disease whether organic or psychogenic is not promptly treated. (Macleod, 1985).

Aim of the Essay: is to discuss anorexia in pediatrics as regards:-

- Anatomy of nervous centers controlling appetite.
- Physiology of appetite and food intake.
- Normal growth and growth curves.
- Aetiology of anorexia.
- Pathophysiology of anorexia.
- Investigations for a case of anorexia.
- Treatment of anorexia.

EMBRYOLOGY
AND
ANATOMY

EMBRYOLOGY OF THE HYPOTHALAMUS

The hypothalamus develops from the wall of the diencephalon. The wall of the diencephalon differentiates into a dorsal roof plate and two alarplates. The alar plates include both sides and the floor of the tube of the diencephalon. (Arey, 1974).

A groove, the hypothalamic sulcus divides the alar plates into a dorsal and ventral regions i.e., the thalamus and hypothalamus respectively.

The hypothalamus, forming the lower portion of the alar plates, differentiates into a number of nuclear areas which will serve as regulatory centers for the visceral functions. One of these nuclear areas, the mamillary body, forms a distinct proruberance on the ventral surface of the hypo thalamus on each side of the midline. (Sadler, 1985).

ANATOMY OF THE HYPOTHALAMUS

A: Location:

The hypothalamus is the phylogenetically ancient region at the base of the diencephalaon.

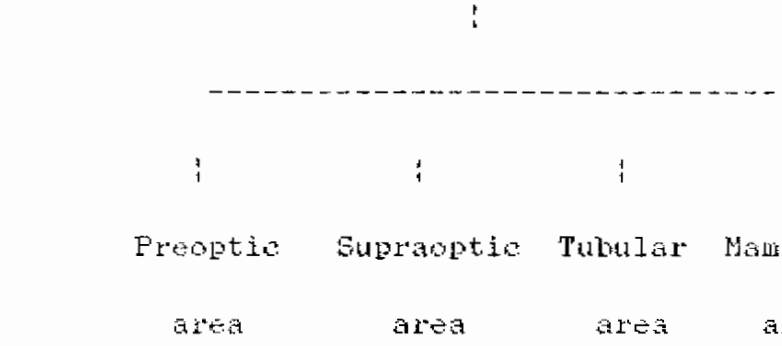
It is bounded medially by the thrid. ventricle and laterally by the subthalamus.

It is bounded dorsally by the anterior commissure and the hypothalamic sulcus.

It is bounded caudally by the mid brain.

B: Nuclei:

The hypothaluma may be anatomically divided into four areas arranged from the lamina terminalis rostrally to the mid brain caudally. These four areas are



Each of the four principal areasis schematically subdivided into three zones of nuclei arranged mediaolaterally which are periventricular zone, medial zone and lateral zone.

Preoptic area

Periventricular zone | Medial zone | Lateral zone

Supraoptic area

Periventricular zone | Medial zone + paraventricularnuclus | Lateral zone + supraoptic nucleus

Tubular area

Periventricular zone	Medial zone + dorsal medial nucleus + ventromedial nucleus	Lateral zone

Mamillary area

Periventricular zone	Nuclei of the mamillary body and posterior hypothalamic nuclei.	Lateral zone