Obesity and its effect on the course and complication of labor

Thesis

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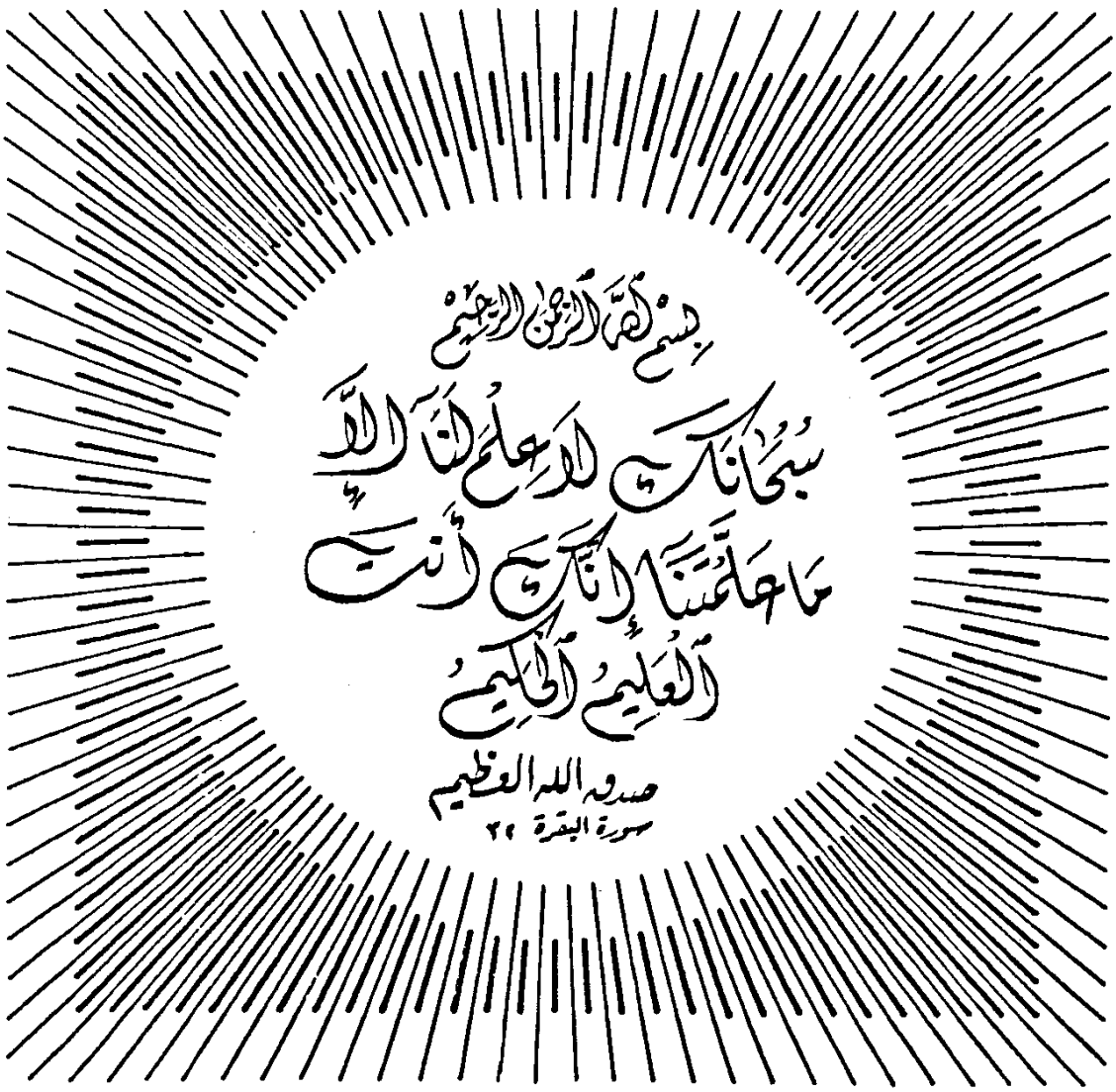

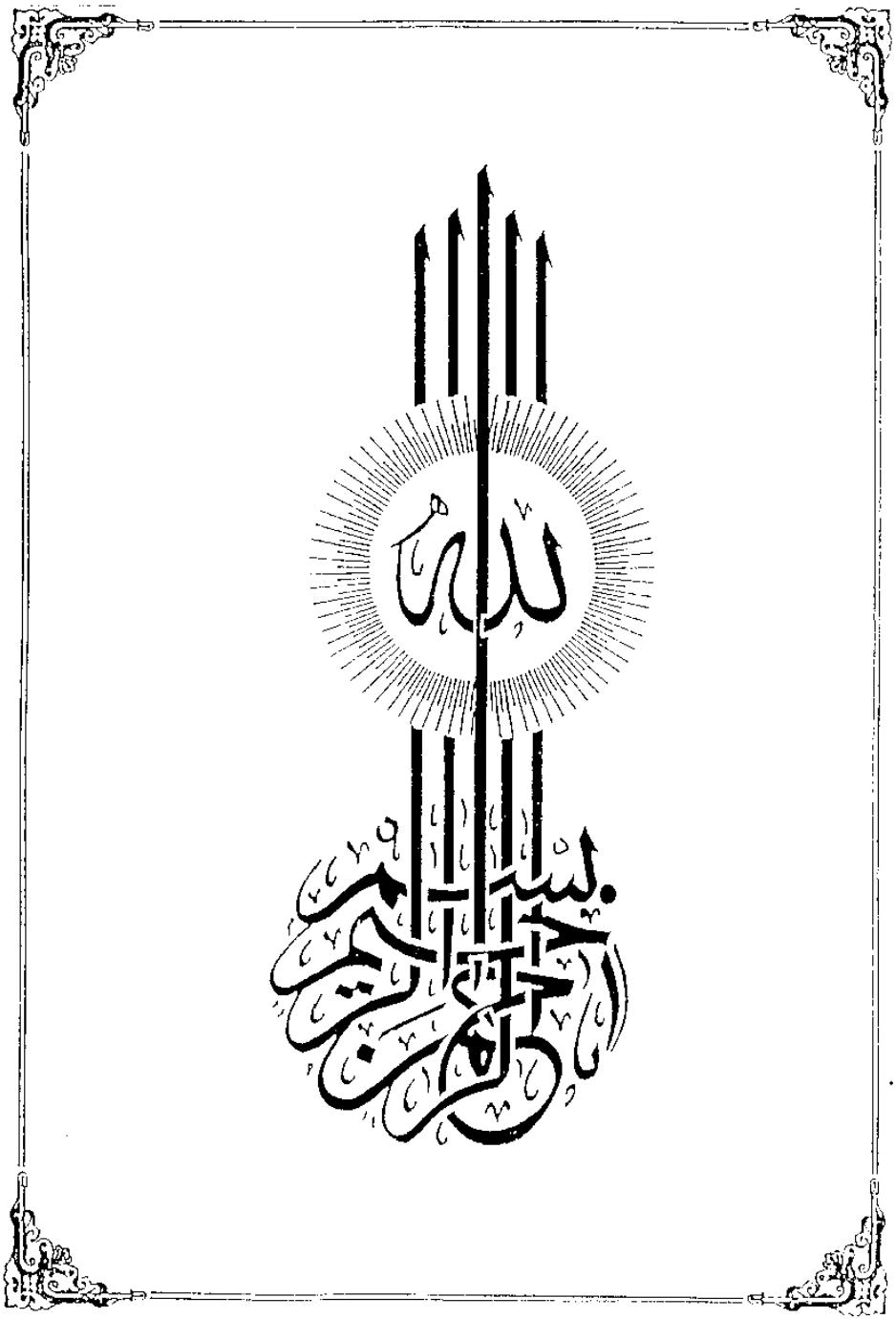

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CONTENTS

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LIST OF ABBREVIATIONS

A.S	: Apgar Score.
A.P.Hge	: Ante partum haemorrhage.
Bl	: Blood.
Cal.	: Calorie.
C.N.S	: Central nervous system.
C.P.D	: Cephalo pelvic disproportion.
C.S	: Caesarean section.
dL	: Decilster.
D.M	: Diabetes mellitus.
D.V.T	: Deep venous thrombosis.
E	: Expected.
gm	: Gram.
gp	: Group.
h	: Hour.
Hb	: Hemoglobin.
I.U.D	: Intra uterine contraceptive device.
K.Cal	: Kilo calorie.
m	: Mean.
mul	: Multiple.
n	: Number.
N.N.D	: Neo-natal death.
NS	: Non significant.
O	: Observed.
O.Cs	: Oral contraceptive pills.
P.I.H	: Pregnancy induced hypertension.
P.P.Hge	: Post partum haemorrhage.
SB	: Still birth.
SD	: Standard deviation.
sem	: Standard error of mean.
t	: Student t test.
vs	: versus.
W	: Week.
Wt	: Weight.
Y	: Year.

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PART I

INTRODUCTION AND AIM OF WORK

Introduction

Maternal obesity has long been regarded as a pregnancy risk factor. There is general agreement that maternal antepartum medical complications, such as hypertension and diabetes mellitus, are significantly increased in obese mother (Odell & Mengert 1945, Tracy & Miller 1969 and Edwards, et al 1978). In addition many clinicians believe that obese patients do poorly during the intra-partum period. Nonetheless, disagreement persists in the literature about the expected course and complications of labor. For example, an increased incidence of prolonged labor in obese mothers has been reported by some authors (Mathews & Der Brucke 1938, and Kerr 1962) but not by others (Douglas & Scadron 1951 and Petry 1956). Some authors have reported an increased rate of caesarean section due to cephalopelvic disproportion in obese mothers (Freedman, et al 1972 and witten 1958), although others have suggested that the increase was related to maternal medical complications rather than obesity itself (Roopnarinesingh and pathak 1970). Even other investigators have found no increase in abdominal delivery (Petry 1956 & Fisher and Frey 1958).

In contrast to the disagreement about the effects of obesity on labor, it is generally accepted that infants of obese women tend to be larger than average. Although the degree of obesity of the neonate has been evaluated in some

reports (Edwards, et al 1978 and Harrison, et al 1980), the effects of maternal obesity on intrauterine growth and gestational duration have not been well defined. Also no increase in perinatal mortality has been observed in many previous studies of obese mother (Odell & Mengert 1945, Douglas & Scadron 1951, Petry 1956 and Fisher & Frey 1958).

Aim of Work

The aim of this work was to examine pregnancy risk and neonatal outcome associated with maternal obesity, with particular attention to the progress and outcome of labor and gestational age/ weight classification of the offspring.

PART II

REVIEW OF LITERATURE

(1) OBESITY

(A) Definitions and measurements

Powers (1980), defined obesity as an excess of body fat, while over weight is a body weight in excess of some standard weight. It is important to use measures that estimate body fat rather than body weight, because not only are some over weight persons actually under fat, but conversely, some under weight persons are actually over fat.

Estimation of body fat is provided by measuring body density (Powers, 1980).

Siri (1965), reported various equations to estimate percentage of fat using lean body and fat density measured by under water weighting of the whole body, a process known as densitometry. The basic principle of this method is that an object submerged in water displace its own weight. The body fat is less dense than lean body mass, therefore the greater the proportion of fat in the body, the smaller is the body density.

Thomas et al. (1976), stated that the most accurate method of determining body fat is to determine the density of the body by under water measurement, but certainly this is not practical to measure the density by submerging