A RETROSPECTIVE STUDY OF SEASONAL OCCURRENCE OF ECLAMPSIA AT AIN SHAMS MATERNITY HOSPITAL

SUBMITTED FOR PARTIAL FULLFILMENT OF

M. S. DEGREE IN OBSTETRICS & GYNAECOLOGY

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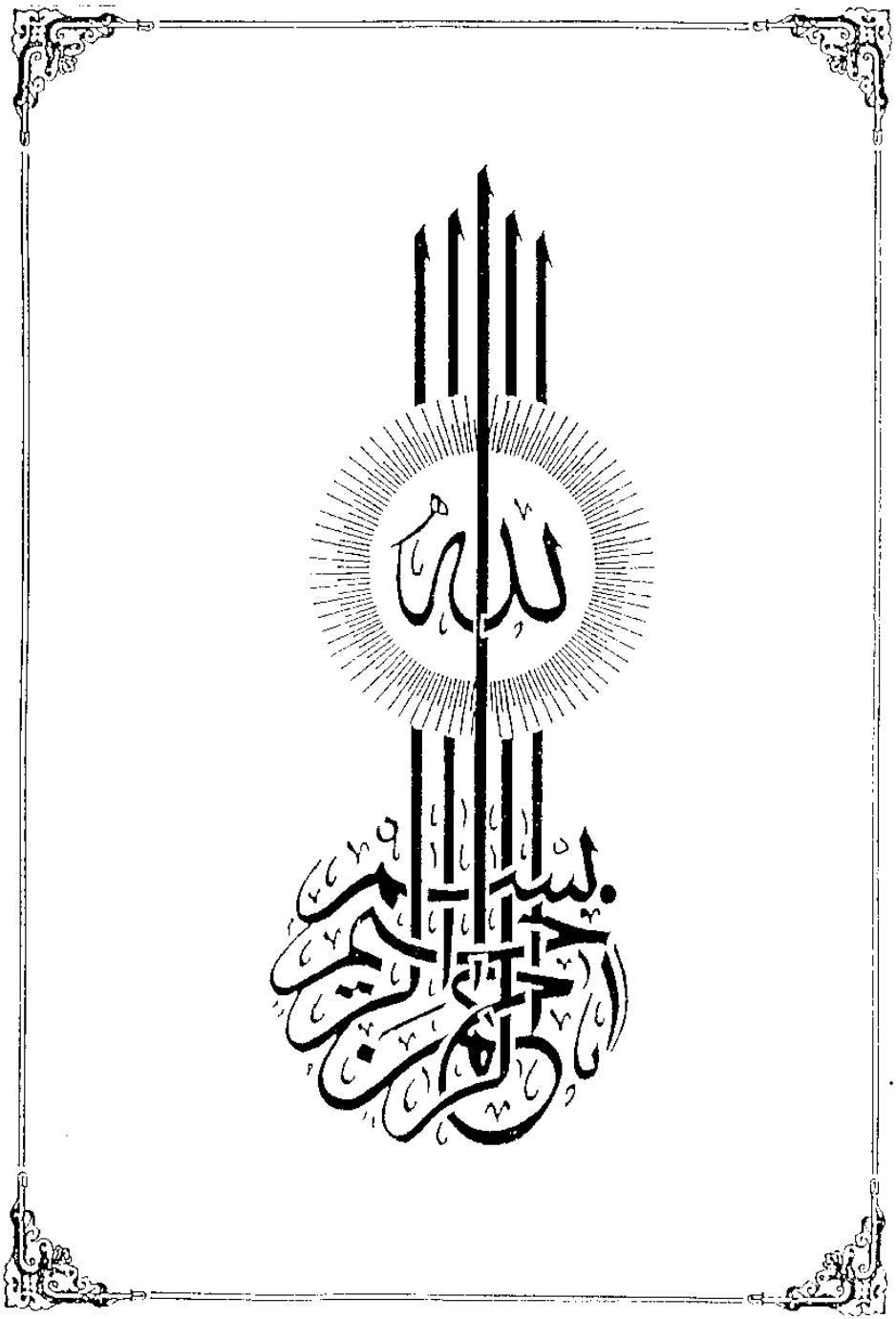
بسم الله الرحمن الرحيم

سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا

إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

سورة البقرة .. آيه ٣٢



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TO

MY FATHER,

MY MOTHER AND

MY FUTURE HUSBAND

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INTRODUCTION

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Eclamptic convulsions are major complication of pregnancy. In a study made in Thailand, the incidence of eclampsia was 0.2% of all deliveries and the nulliparas had higher incidence than multiparas in all age groups, with a maternal mortality rate 4.7%, *[ParapaKkham, 1979]*

The severity of eclamptic symptoms influenced the extension of the placental separation, older and nuliparous women had more complication. The dominant factor for morbidity was the stage reached by the combined pathology before receiving qualified medical care and the wide variability of the cases suggested that the basis for complete management should be a series of sound and individually tailored decisions to be carried out in a reasonable short time. *[Lopez et al., 1988]*.

Chesley et al. (1968) stated that there is family tendency to pregnancy induced hypertension when he treated more than 96% of grown daughters of women who had eclampsia.

The incidence of pre-eclampsia in the first pregnancy was 37% in sisters, 26% in daughters, 25% in grand daughters 4 of the daughters or one in 47had eclampsia.

Neutra (1974) stated that in Cali Columbia, the incidence of eclampsia varied according to weather conditions, it is inversely proportional to environmental temperature and directly proportional to relative humidity.

Agobe et al. (1981) also *Crowther (1985)* found that there is a quiet clear seasonal variation in the rate of eclampsia.

AIM OF THE WORK

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We noted that the rate of admission of eclamptic patients increases at Ain Shams Maternity hospital during seasonal variation i.e of being increased in spring , Autumn. So our aim was to analyse cases of eclampsia in the last 5 years (1984-1988) taking in consideration the date of admission with a trial to link the occurrence of the disease with seasons.

REVIEW OF LITERATURE

Definitions

Pre-eclampsia: is the development of hypertension with proteinuria, oedema or both induced by pregnancy after 20th week of gestation and sometimes earlier when there are hydatiform changes in the chorionic villi *(Hughes, 1972)*.

Eclampsia: is diagnosed when convulsions not caused by any coincidental neurological disease such as epilepsy in pregnant women who had clinical criteria for pre-eclampsia.

Hypertension: is one of the commonest complications of pregnancy and is one of the commonest causes of foetal and maternal morbidity and mortality. The American collegue of obstetriscians and gynecologists (1986) define hypertension that developed during pregnancy as a diastolic blood pressure of at least 90mmHg or systolic pressure of at least 140 mmHg or a rise of at least 15mmHg diastolic or 30 mmHg systolic pressure on at least 2 occasions 6 hours or more apart above the basal blood pressure of non pregnant or early pregnant level before 28 weeks.

Page and ***Christiansan (1976)*** advocated the use of mean arterial pressure during pregnancy. Mean pressure is determined by the following relationship :

Mean arterial pressure =

$$\text{Systolic blood pressure} + 2 \times \frac{\text{Diastolic blood Pressure}}{3}$$

which can be simplified for clinical use to mean arterial pressure = Diastolic +1/3 pulse pressure. The committe on terminology of American collegues of obstetriscians and gynecologists *(Hughes, 1972)* defined either an increase in mean arterial pressure of 20mmHg or if a prior blood pressure is not known, a mean arterial pressure of 105 mmHg as indicative of hypertension.

Gestational hypertension is diagnosed in all normo-tensive women who develop hypertension without proteinuria.

In younger primigravid patients without a family history of hypertension it probably represents an early stage of the development of pre-eclampsia [which is diagnosed when proteinuria develops]. ***Villar and Colleagues (1988)*** reported that 31 percent of young primigravidas with a rise 15 mmHg in diastolic blood pressure developed pregnancy induced hypertension.

In older multigravid women with a family history of hypertension, gestational hypertension is probably due to an underlying inherited tendency to hypertension which becomes

overt during pregnancy and is perhaps best known as latent essential hypertension.

Proteinuria is an important sign of pre eclampsia, eclampsia. ***[Chesly 1985]*** right fully-concluded that the diagnosis is questionable in abscence of proteinuria. Proteinuria is defined as 300mg or more of urinary protein during a 24 hour period or 100mg/dL or more in at least two random urine specimens collected 6 hours or more apart.

Edema is diagnosed as clinically evident swelling but fluid retention may also be manifest as a rapid increase of weight over 0.5Kg/week without evident swelling ***[occult oedema]***.

Eclampsia is derived from a Greek word meaning a shining forth, in reference to the sudden appearance of convulsions ***[Theobald, 1955]***. Eclampsia is an extremely dangerous complication of pregnancy but it forms one of the most important causes of maternal and perinatal deathes.