A STUDY OF HYPERTENSIVE DISORDERS IN PREGNANCY

THESIS

Submitted in Partial Fulfilment of

Master Degree in Obst. and Gyn.

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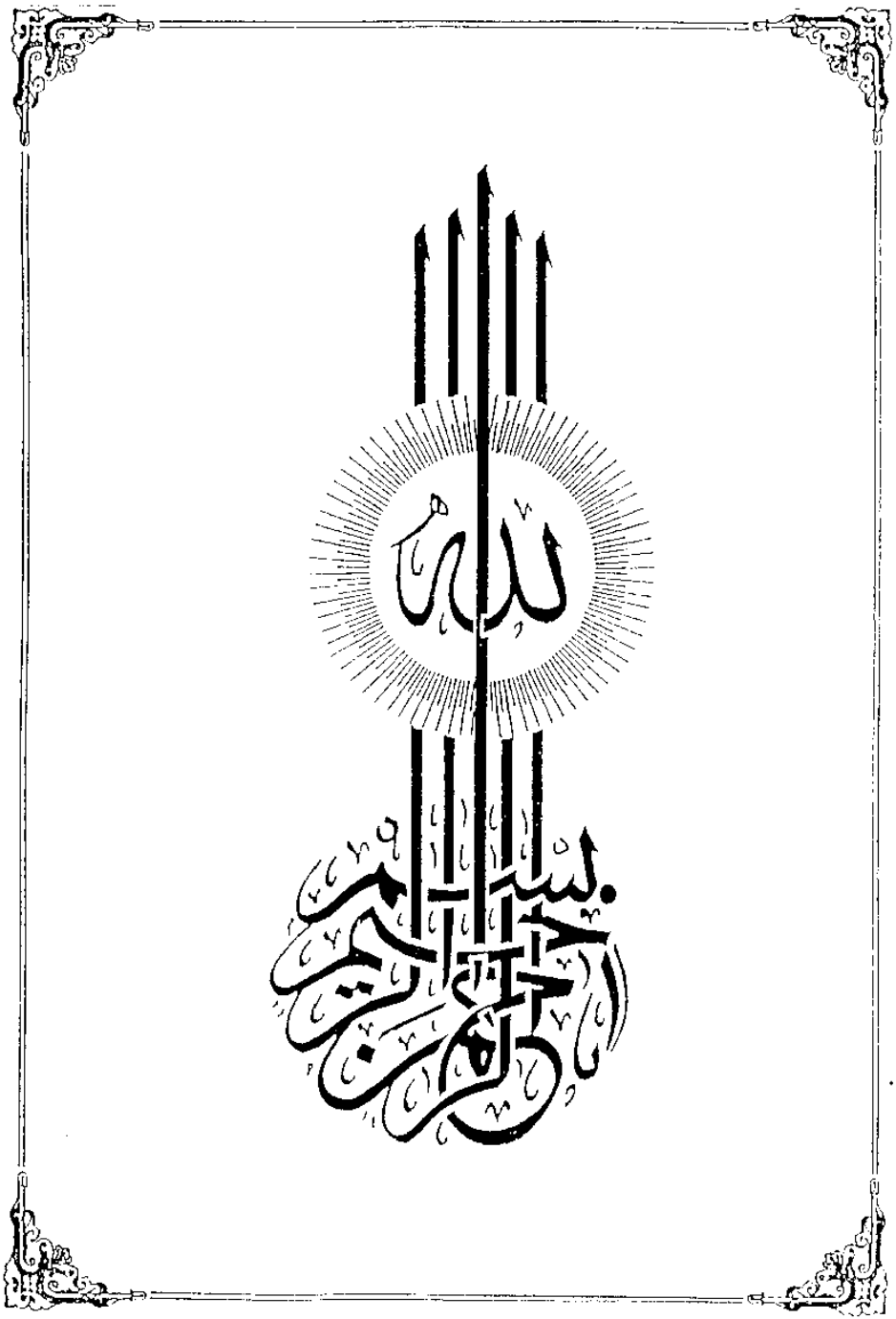

Introduction

The more carefully we carry out antenatal supervision, the sooner the warnings of the disease and its early physical signs will be noted. The more often prophylactic advice is given,and taken,the more successful we will be in reducing the morbidity and mortality of the disease.Initially therefore, it is the antenatal care that is of the utmost importance(Dewhurst,I972).

AIM OF WORK

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Aim of the work is to evaluate the results of application of a protocol accepted for management of hypertensive disorders of pregnancy in the Maternity Hospital in Ain Shams University, and correlative retrospective and prospective study of the results of management of eclampsia before and after the application of this protocol. In this thesis, the clinical data of cases of hypertensive disorders of pregnancy discussed according to :-

- Age, parity, duration of pregnancy, blood pressure and albuminuria.
- Duration of admission, lines of medical management of hypertension and obstetrical management.
- Morbidity and mortality.

Review of Literature

REVIEW OF LITERATURE

HISTORICAL CONSIDERATIONS

Eclampsia was mentioned in the ancient Egyptian, Chinese,Indian and Greek medical literature.Several of the German authors cited Hippocrates as Commenting on the susceptibity of pregnant women to convulsions (Chesley,I974).

According to Pritchard-MacDonald(I980),late in the nineteenth century the maternal mortality rate of about 30 percent associated with forced vaginal delivery or caesarean section in eclampsia,led to more conservative medical therapy.During the first quarter of the twentieth century;obstetricians were divided into "radicals" and "conservatives" with some following a"middle line". In the mid I920, reviews indicated that the maternal mortality rate was doubled by immediate caesarean section. In the late I920, the solgan became"Treat eclampsia medically and ignore the pregnancy",and an overly conservative attitude prevailed.From this time, most every drug suspected of having a sedative effect or hypotensive effect or diuretic effect has been

administrated in the women with eclampsia usually several drugs have been employed simultaneously. Often the convulsions were controlled but the woman was rendered comatose by the medications rather than the disease.As the consequence of such empiric therapy, women with eclampsia have been treated in a most variable way,especially in institutions where eclampsia is uncommon(Pritchard-MacDonald,I980).

Many trials of treatment were employed.Stroganoff in Russia advocated combined administration of morphia, chloral hydrate and chloroform(Stroganoff,I923).He also reported that early rupture of membranes followed by reduction of fits, due to decrease of intrauterine pressure(Stroganoff,I934).

The origin of the word eclampsia is derived from the Greek word meaning a shining froth(flash)in reference to the visual flashs that occur before the sudden appearance of the convulsion (Chesley,I972).

DEFINITION AND CLASSIFICATION

The unsatisfactory term TOXAEMIAS OF PREGNANCY have been applied variably to disorders in which hypertension,proteinuria oroedema was present during pregnacy or puerperium.The Committee on Terminology of American College of Obstetricians and Gynecologists suggested the following definitions and classification:- (Hughes,I972).

Hypertension: It is diastolic blood pressure of at least 90 mm Hg, or systolic blood pressure of at least I40 mm Hg, or rise in the former of at least I5 mm Hg, or the latter of 30 mm Hg. The blood pressure cited must be manifest on at least two occasions 6 hours or more apart.

Proteinuria: It is more than 0.3 gram per liter in 24 hours collection, or greater than I gram per liter in at least two random urine specimens collected 6 hours or more apart.

Preeclampsia: It is the development of hypertension with proteinuria,oedema,or both,induced by pregnancy after the 20 th week of gestation,and sometimes earlier when there is extensive hydatiform changes in the chorionic villi.

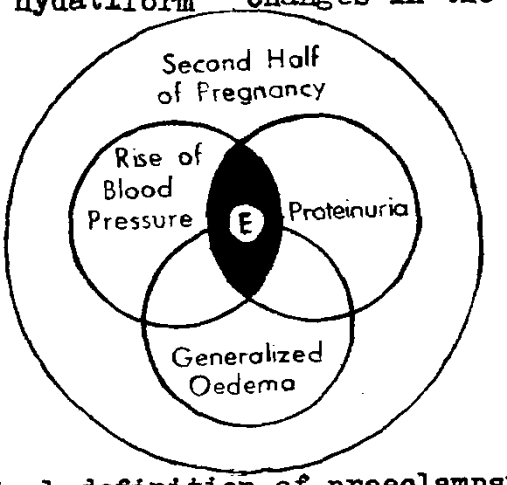

Fig.(I) Clinical definition of preeclampsia-eclampsia (From Page,I972).

Eclampsia: It is the occurrence of convulsions, not caused by any coincidental neurologic disease such as epilepsy, in a woman whose condition also fulfills the criteria for preeclampsia.

Superimposed preeclampsia or eclampsia: It is the development of preeclampsia or eclampsia in a woman with chronic hypertensive vascular or renal disease.

Chronic hypertensive disease: It is the presence of persistant hypertension,of whatever the cause, before the 20 th week of gestation in absence of neoplastic

tropholdastic disease, or persistant hypertension beyond 6 weeks postpartum.

Gestational hypertension: It is hypertension that develps during the latter half of pregnancy or during the first 24 hours after delivery.It is not accompanied by other evidence of preeclampsia or hypertensive vascular disease,and it disappears within IO days following parturition.Gestational hypertension is most likely to be a varient of preeclampsia.

Gestational oedema: It is the generalised accumulation of fluid of greater than " one plus" pitting oedema after I2 hours bed rest or a weight gain of 5 pounds or more in a week.

Gestational proteinuria: It is proteinuria during pregnancy in the absence of hypertension, oedema, renal infection, or known renovascular disease; the existence of such entity is questionable.

Classification of gestational hypertensive disorders

According to Benson (I980):

GEP_oH_o : Gestational oedema, no proteinuria, no hypertension.

$GE_oP\ H_o$: Gestational proteinuria, no oedema, no hypertension.

GE_oP_oH : Gestational hypertension, no oedema, no proteinuria.

$GE_oP\ H$: Preeclampsia (hypertension, proteinuria, no oedema).

$G\ E\ P_oH$: Preeclampsia (hypertension, oedema, no proteinuria).

$G\ E\ P\ H$: Preeclampsia (hypertension, proteinuria, oedema).

According to Pritchard-MacDonald (I980).

- Preeclampsia and eclampsia.
- Chronic hypertensive disease.
- Superimposed preeclampsia or eclampsia.

CHRONIC HYPERTENSIVE DISEASE

Definition : It is the presence of persistant hypertension (I40/90 or more), of whatever the cause, before the 20th week of gestation,in the absence of neoplastic trophoblastic disease, or persistant hypertension beyond 6 weeks postpartum.Cases in which successive pregnancies are associated with hypertension but the blood pressure is normal between pregnancies, some regarded as hypertensive vascular disease,other have regarded as preeclampsia and still others have regarded as a separate entity (Pritchard-MacDonald,I980).

Classification:(Sims, I970)

I . Hypertensive disease:

1. Essential hypertension(hypertensive vascular disease): It is the most common disease,which may be mild,moderate,severe or malignant (acclerated).

2. Renal vascular hypertension(renovascular hypertension).

3. Coarctation of the aorta.