ORIGINAL RESEARCH PAPER

Ophthalmology

INCIDENCE AND PREVALANCE OF TOXEMIA OF PREGNANCY IN A TERTIARY HOSPITAL IN WESTERN INDIA

KEY WORDS: Pregnancy Induced Hypertension, Primigravida, Multigravida.

Dr Mayank P Acharya Additional Professor, Department of Ophthalmology, Guru Gobind Singh Government Hospital, Jamnagar, Gujarat

Dr. Binita N Gadhavi Final Year Resident, Department Of Ophthalmology, Guru Gobind Singh Government Hospital, Jamnagar, Gujarat

Dr. Atul Kamath M* Final Year Resident, Department Of Ophthalmology, Guru Gobind Singh Government Hospital, Jamnagar, Gujarat *Corresponding Author

Dr. Dhananjay A Bhosale Final Year Resident, Department Of Ophthalmology, Guru Gobind Singh Government Hospital, Jamnagar, Gujarat

ABSTRACT

Background-Incidence & prevlance of toxaemia of pregnancy in a tertiary hospital in western India.
Methods- One hundred cases of pregnancy induced hypertension in all the three trimester were studied & basic details were entered. The ophthalmic examination in form of visual acuity, pinhole, near vision , corrected vision ,anterior segment examination ,slit lamp examination ,tonometry, (schiotz) direct ophthalmoscopy, indirect ophthalmoscopy.
Results- 35 patients were in age group of 21-25 years. 28 primigravida patients had pregnancy induced hypertension in 15-20 year age group while 14 patients had positive fundus changes. 11 multigravida patients had pregnancy induced hypertension in 26-30 yr age group with 3 patients having positive fundus changes. In first, second & third trimester 3, 2 & 95 patients were reported with pregnancy induced hypertension.
Conclusion- With maximum patients being detected at the third trimester proper awareness, a salt restricted diet, regular check ups and investigations, frequent follow ups helps in reducing morbidity & mortality.

INTRODUCTION-

Conditions that leads to direct obstetric deaths (those resulting from complications of pregnancy, delivery or their management) are abortion, ectopic gestation, pre-eclampsia –eclampsia, antepartum and postpartum hemorrhages and puerperal sepsis. 5-15 percent of maternal deaths are due to toxemia and are mostly due to lack of antenatal care related to high level illiteracy and ignorance about the importance of antenatal care for the benefits of mother & fetus. Pre-eclampsia also has an important cause of perinatal mortality due to placental insufficiency or prematurity – spontaneous or induced. Ophthalmologist can play an important role in detecting cases of pre – eclampsia – eclampsia.

METHODS & MATERIALS-

100 Cases of pregnancy induced hypertension in all the three trimester were studied they include the cases of pregnancies admitted in antenatal ward and attended antenatal clinic in Gurugobind Singh Government Hospital, Jamnagar during the period of study after approval by institutional ethics comittee. History of patient's complaints was taken and leading questions were asked specially with regard to ocular complaints. this was done to assess the role of ocular symptoms in clinical picture in different cases of pregnancies. Relevant past history, drug history and family history was taken. General examination was carried out. Per abdominal examination was done to observe the duration of pregnancy, presentation of fetus , presence of fetal heart sounds , ascites, liver & spleen. Cardiovascular system examination for presence of murmur and cardiac enlargement, respiratory system examination for any lung pathology and nervous system examination to exclude any neurological lesions was carried out**.** Local ocular examination was carried out to record visual acuity for distance (snellen's chart). Fundus examination was carried out with the help of ophthalmoscopic (both direct and indirect method) under full mydriasis which was achieved by prior installation of 1 % tropicamide eye drops (phenylephrine avoided). Fundus examination was seen underthe following headings :

MEDIA :- for presence of any opacity , hemorrhages , neovas cularization or fibrous tissue.

DISC :- for any change in size , colour, margins , cup, cup-disc ratio, neuroretinal rim, blood vessels of the disc, for hemorrhage, engorgement, tortuosity.

BLOOD VESSEL :- for arterial or arteriolar spasm ,microaneurysm , venous dilatation, tortuosity, banking of vein, hemorrhages.

MACULA :- for foveal reflex, and any hemorrhage , exudate, pigmentation.

GENERAL FUNDUS :- for any hemorrhage , exudates, retinal edema or detachment.

The following investigations were done :
I) blood pressure by auscultatory method
II) urine examination for sugar, albumin, bile salts
III) hemoglobin estimation with sahli's hemoglobinometer
IV) blood urea estimation

To assess the incidence of fundus changes in relation to the duration of pregnancy the case were divided three groups-

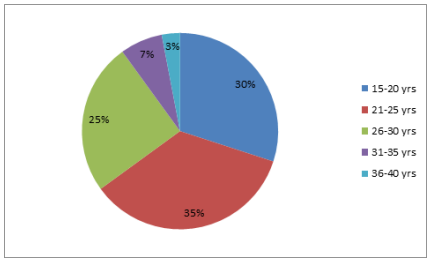
- First trimester - upto 3 months of pregnancy
- Second trimester - 4 to 6 months of pregnancy
- Third trimester - 7 to 9 months and above of pregnancy.

The data obtained were collected, analysed, assessed and tabulated and was entered into an Excel spreadsheet and then transferred to SPSS software (Statistical Package for Social Sciences, version 22, SPSS Inc, Chicago, IL, USA) for analysis.

RESULTS-

1. Highest no. of patients were in age group of 21-25 years (35 patients) and lowest no. in age group of 36-40 years (3 patients) as depicted in graph-1

GRAPH-1



2. 28 primigravida patients had pregnancy induced hypertension in 15-20 year age group while 14 patients had positive fundus changes as depicted in Table-2

TABLE-2

AGE GROUP (IN YEARS)	TOTAL NO. OF TOXEMIA CASES	CASES WITH FUNDUS CHANGES	PERCENTAGE
15-20	28	14	50.00%
21-25	29	11	37.90%
26-30	14	06	42.90%
31-35	-	-	-
36-40	-	-	-
TOTAL	71	31	43.70%

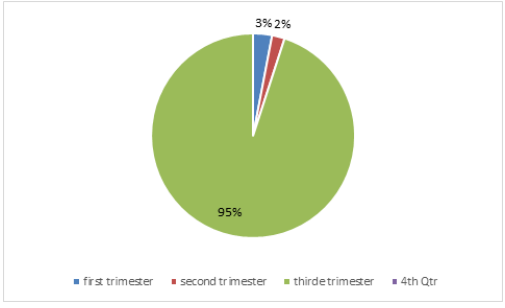
3. 11 multigravida patients had pregnancy induced hypertension in 26-30 year age group with 3 patients having positive fundus changes as depicted in Table-3

TABLE-3

AGE GROUP (IN YEARS)	TOTAL NO. OF TOXEMIA CASES	CASES WITH FUNDUS CHANGES	PERCENTAGE
15-20	02	01	50.00%
21-25	06	02	33.30%
26-30	11	03	27.30%
31-35	07	01	14.30%
36-40	03	-	-
TOTAL	29	07	24.10%

4. In first, second & third trimester 3, 2 & 95 patients were reported with pregnancy induced hypertension as depicted in Graph-2

GRAPH-2



DISCUSSION-

Geographic, social, economic, and racial differences, however, are thought to be responsible for incidence rates up to 3 times higher in some populations.[1] Preeclampsia/eclampsia remains one of the most common reasons for women who die during pregnancy worldwide.[2] 12% of all maternal deaths is caused by eclampsia.[2] The rate of preeclampsia and eclampsia is higher in the developing countries because of absent prenatal care and lack of access to proper hospital care.[3] 5-15 percent of maternal deaths are due to toxemia and are mostly due to lack of antenatal care related to high level illiteracy and ignorance about the importance of antenatal care for the benefits of mother & fetus.[4]

CONCLUSION-

The shocking scenario is revealed when expressed in terms that in the developing countries, there has been one maternal death per minute. Serial examinations of the optic fundi, visual acuity and central fields assessments by Amsler Grid are simple, inexpensive, and indispensable tests that will help identify the patient threatened visually by severe preeclampsia. These tests should allow early detection of retinopathy and influence timely obstetric intervention to prevent permanent retinal damage. Early detection is very important to provide treatment and thus ultimately results in decrease in maternal morbidity and mortality and perinatal mortality.

REFERENCES-

1. Sibai, B.M. Diagnosis, prevention, and management of eclampsia. Obstet Gynecol. 2005; 105: 402–410.
2. Walker, J.J. Pre-eclampsia. Lancet. 2000; 356: 1260–1265
3. Goldenberg, R.L., McClure, E.M., MacGuire, E.R. et al. Lessons for low-income regions following the reduction in hypertension-related maternal mortality in high-income countries. Int J Gynecol Obstet. 2011; 113: 91–95
4. Jaffe G Schatz H, ocular manifestations of pre-eclampsia, AMJ Ophthalmol, 1987, 103 (3 pt 1): 309-315