ORIGINAL RESEARCH PAPER

Medical Science

PERINATAL OUTCOME IN PREECLAMPSIA

KEY WORDS:

Dr. Yellamelli Megha Spandana*

Katuri Medical College.*Corresponding Author

INTRODUCTION :

Preeclampsia is a disorder of pregnancy characterized by the onset of high blood pressure and often a significant amount of protein in the urine .When it arises , the condition begins after 20 weeks of pregnancy.

Clinically , Preeclampsia presents as a new onset hypertension in a previously normotensive woman , with systolic and diastolic blood pressure readings of more than 140 and more than 90mmhg respectively on two separate occasions that are at least 6 hours apart together with proteinuria that develops after 20 weeks of gestation .Preeclampsia affects 5 to 7 percent of all pregnant women but is responsible for over 70,000 maternal deaths and 5000 foetal deaths worldwide every year .

Preeclampsia is independently associated with the development of Intrauterine growth restriction . Intrauterine growth restriction is a condition in which the growth of foetus is slow . If the foetal weight is below the tenth percentile for its gestational age ,then the condition is said to be Intrauterine growth restriction. Oligohydramnios is defined as a deepest fluid pocket of less than 2 cm or an amniotic fluid index of 5cm or less . It can be associated with foetal growth restriction as a result of reduced renal perfusion and urine output .

CASE REPORT :

A 34 year old patient named srivalli primi of gestational age 36 weeks 4 days came with a complaint of headache since one week. She is not having any other complaints such as bleeding pervaginum , leaking pervaginum , dysuria ,constipation , blurring of vision and pedal oedema. She is perceiving foetal movements well . Her menstrual periods are regular and marital life is 4 years . Her blood pressure recordings are 160 /110 mmhg and pulse rate is 82 per minute .she had mild pedal oedema which is pitting type . Per abdomen findings were uterus 32 to 34 weeks size , relaxed , foetal parts felt , cephalic presentation which is not engaged . Symphysiofundal height was less by 5cm . Clinical examination revealed fundal height of less than gestational age . Pervaginal examination reveals cervix posterior, firm ,uneffaced , external os Closed , presenting part vertex and station high up .

Her complete blood picture ,renal function tests ,liver function tests and coagulation profile was sent .All were normal . Urine protein dipstick test was done and it shows 2 plus .Ultrasound abdominal examination was done and she is diagnosed with Oligohydramnios with liquor 3 to 4 cm . Foetal measurements such as biparietal diameter , foetal length , abdominal circumference and head circumference were done . Head circumference / abdominal circumference was reduced Umbilical artery Doppler ultrasound was done which shows increased Systolic /Diastolic ratio . Examination of optic fundi also done which was normal .

She was given labetalol 100mg twice a day and Nifedipine 5 mg thrice a day but still her blood pressure recordings were not stable . So ,she was prepared for caesarean section and lower segment caesarean section was done .Finally ,she delivered a preterm baby and kept in New-born intensive care unit .

This is a case diagnosed as primi with preeclampsia and Oligohydramnios with Intrauterine growth restriction.

DISCUSSION :

Preeclampsia complicates about 5 percent of all pregnancies world wide and is one of the leading causes of maternal and foetal morbidity and even mortality .

Preeclampsia is primarily a disease of the placenta .In normal pregnancies ,trophoblast begins invasion into the myometrial blood vessels by remodelling the maternal spiral arteries , transforming them from small muscular ,higher resistance arterioles into large calibre arteries with high capacitance and free flow of blood . Remodelling typically begins in the late first trimester and is completed by 18 to 20 weeks of gestation .Failure of this process of complete remodelling leads to persistence of high resistance spiral arteries that impede placental perfusion thereby leading to a state of relative hypoxemia which culminates into maternal endothelial cell dysfunction.

A compromised placental perfusion leads to a decrease in blood flow to the developing foetus . Foetal complications include premature birth ,foetal growth restriction and placental abruption . Primary consequences are intrauterine growth restriction of the foetus and Oligohydramnios .Perinatal death is primarily related to premature delivery , placental abruption and intrauterine asphyxia. Neonatal complications such as necrotizing enterocolitis, respiratory distress syndrome and intraventricular haemorrhage .

Maternal complications are primarily related to the organ system damage including pulmonary oedema ,seizures ,renal failure ,liver haematoma or rupture and bleeding complications. Ocular involvement can present with retinal vasospasm and retinal oedema. Retinal detachment and cortical blindness may occur in extreme cases .

CONCLUSION:

Preeclampsia is associated with Oligohydramnios .There is increased risk of Intrauterine growth restriction in preeclampsia and Oligohydramnios occurs in IUGR as result of hypo perfusion of foetus.

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