



EPILEPSY IN PREGNANCY AND FETOMATERNAL OUTCOMES

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ABSTRACT

AIMS AND OBJECTIVES: Objective of present study is to evaluate fetomaternal outcomes in patients with epilepsy. **METHODS AND MATERIAL:** A Retrospective observational study was done in Great eastern medical school and hospital in the department of OBGY, Srikakulam, AP, India, over a period of time 6 months from June 2019-november 2020. In all cases fetomaternal outcomes were noted. **RESULTS:** A total of 8 cases out of 918 pregnancies were found to be epileptic. 5 cases were primigravida, 3 being multigravida. Mode of delivery - 3 cases were taken up for LSCS, 5 cases delivered vaginally. One case was on polytherapy, 5 case on monotherapy and 2 were not on medication. Total of 9 live births one being preterm delivery. Only one baby had skeletal malformation called genu recurvatum. Other maternal complications were noted. **DISCUSSION:** Incidence of epilepsy complicating pregnancy is 0.5-1%. The review of literature shows vast majority of cases are uncomplicated but there are increased obstetric risks and increased adverse neonatal outcomes when compared to general population. After the diagnosis, the regimen should be reassessed and monotherapy rather than polytherapy should be prescribed to minimize complications. Frequency of seizures is increased during pregnancy in one third of women with pregnancy. **CONCLUSION:** Pregnancy with epilepsy presents a unique challenge both for the mother and her baby. In this study we observed that though pregnancy with epilepsy needs comprehensive antenatal care to manage the complications. These women should be managed with monotherapy at the lowest dosage to diminish the risk of complications and achieve good seizure control. High risk pregnancies need referral to tertiary care centers for better fetomaternal outcomes.

KEYWORDS :

INTRODUCTION

Epilepsy is the second most common encountered neurological disorder in Obstetrics after migraine. Incidence of seizure disorder in pregnancy is estimated to be 0.5-1% of all births.

In 1870 Hughlings Jackson a British neurologist defined epilepsy as an intermittent derangement of nervous system due to an excessive and disorderly discharge of cerebral nervous tissue on muscles.

About 2.5 million women in India suffer from epilepsy, with 25% of them being in the reproductive age group.

Majority of women with epilepsy will have normal, healthy infants.

Effective preconceptional counseling and medical care is essential for the treatment of the pregnant women with epilepsy.

Exposure to AED has been associated with two to three times increase in major malformations in infants exposed in-utero as compared to the ordinary population.

Pregnancy with epilepsy is considered high risk mainly due to teratogenic potential of antiepileptic drugs and increased risk of pregnancy and neonatal complications.

AIMS AND OBJECTIVE

Objective of present study is to evaluate fetomaternal outcome in patients with epilepsy in a tertiary care hospital.

METHODS AND MATERIALS

Study design: Retrospective observational study

Study Sample: All pregnant women admitted during the period of 6 months from June 2019 to November 2019 at department of obstetrics and gynecology GEMS Hospital Srikakulam, Andhra Pradesh, India.

Source of Sample: All pregnant women who are known Epileptics.

METHODOLOGY:

Medical records of all pregnant women admitted in GEMS hospital during the specified period of 6 months were retrospectively analyzed. Maternal variables noted were parity, seizure during pregnancy, antiepileptic drug usage in pregnancy, maternal complications and mode of delivery. Fetal outcome variables observed were number of live births, preterm births, observation of congenital anomalies.

Total 8 epilepsy cases were included in this study. These patients were managed with a team of Neurologist, Obstetrician, Radiologist and Paediatrician.

RESULTS

In this study, 8 epilepsy patients were included, out of 918 pregnant women in a period of 6 months.

PARITY

	NUMBER	PERCENTAGE
PRIMI	5	62.5%
GRAVIDA 2	2	25%
GRAVIDA 3	1	12.5%
GRAVIDA 4 AND ABOVE	0	0%

SEIZURE DURING PREGNANCY

	NUMBER	PERCENTAGE
SEIZURE ACTIVITY	2	25%
NO SEIZURE ACTIVITY	6	75%

MODE OF DELIVERY

	NUMBER	PERCENTAGE
LSCS	3	37.5%
NVD	5	62.5%
FORCEPS	0	0%

ANTIEPILEPTIC DRUGS

DRUGS	NUMBER	PERCENTAGE
3 DRUGS	1	12.5%
2 DRUGS	1	12.5%
SINGLE DRUG	4	50%
NOT ON ANY MEDICATION	2	2%

MATERNAL COMPLICATIONS

COMPLICATIONS	NUMBER	PERCENTAGE
PROM	1	12.5%
POLYHYDRAMNIOS	1	12.5%
HYPOTHYROIDISM	2	25%

FETAL OUTCOMES

OUTCOME	NUMBER	PERCENTAGE
1.LIVE BIRTHS	8	100%
2.STILL BIRTHS	0	0%
3.TERM/PRETERM	1	12.5%
4. CONGENITAL ANOMALIES	1	12.5%

DISCUSSION

The review of literature shows vast majority of cases are uncomplicated but there are increased obstetric risks and increased adverse neonatal outcome when compared to general population.

After the diagnosis of pregnancy, the regimen should be reassessed and monotherapy rather than polytherapy should be prescribed to minimize the risk of complications.

The type of anomalies occurring in infants born to pregnant women with epilepsy are oro-facial clefts, cardiac diseases, neural tube defects, skeletal abnormalities which affects the child's life seriously.

In this study 62.5% of cases were primigravida and 37.5% of cases were multigravida.

Among them 2 cases were on polytherapy, 4 cases on monotherapy and 2 cases were not on any treatment.

6 cases were seizure free during pregnancy, where as 2 cases had seizure activity, of which one case being seizing weekly once as she entered 34 wks, and one case had only one seizure attack throughout her pregnancy.

Not many maternal complications were noted, 2 cases of hypothyroidism, 1 case of polyhydramnios and 1 case of PROM was seen.

Epilepsy as such is not an indication of LSCS, most of the epileptic women deliver vaginally, in this study 37.5% cases delivered by LSCS and 62.5% cases were delivered vaginally.

No IUGR babies, single preterm baby, no still births were seen. Neonatal bleeding can occur in mothers taking AEDs because of diminished amount of Vitamin-K dependent clotting factors. No case of neonatal bleeding was observed in this study.

A single case of skeletal abnormality was seen, where both the knee joints and hip joints were dislocated and appeared like genu recurvatum. There was no maternal mortality in the study.



CONCLUSION

Pregnancy with epilepsy presents a unique challenge both for the mother and her baby. In this study we observed that pregnancy with epilepsy needs comprehensive antenatal care. These women should be managed with monotherapy at the lowest possible dosage to diminish the risk of complications and also maintain good seizure control.

They must be subjected to high-definition anomaly ultrasound scan at 18-20 weeks. These women should be managed with mandatory folate supplementation and the neonates must be given Vitamin-K.

These high risk pregnancies need spontaneous referral to tertiary care centers for better maternal and neonatal outcome.

Pregnant women on AEDs should have their drug levels monitored. Women should be counseled about the importance of adequate amount of sleep and rest, since both sleep deprivation and fatigue increase the likelihood of seizure activity.

Contraception is an important consideration for epileptic patients.

The perinatal complications can be diminished by the close coordination between the Neurologist, Obstetrician and Paediatrician.

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