Original Research Paper

Volume : 5 | Issue : 9 | September 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

Obstretic Outcomes in Women with Epilepsy : Retrospetive Study

Medical Science

KEYWORDS :

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ABSTRACT

Pregnancy in an epileptic women on A E D (antiepileptic drugs) is a cause of concern to the consultant treating the patient due to possibility of adverse fetal outcome, and maternal obstetric outcome. We have studied 32 cases of epilepsy from January 2014 to October 2015 to know the obstetric outcome in these high risk patients. A Hospital based retrospective study between 32 epileptic women and 35 non-epileptic/normal women (randomized control). All complications during pregnancy, at delivery and immediately after delivery were compared in the two groups, visiting regularly at Civil Hospital Ahmedabad. Pregnancy outcome included hypertensive disorders, IUGR (intrauterine growth retardation), induction of labor, caesarean delivery, instrumental delivery, fetal birth weight, congenital anomalies etc. were studied. In our study, It was seen that incidence of induction of labor 46.87% and LSCS(lower segment caesarean section) 56.25% was higher in WWE(women with epilepsy) on AED (antiepileptic drugs) than the women in normal group where induction of labor (37.14%) and LSCS (40%).This difference was significantly higher in WWE than normal group. Incidence of other obstetric complications like PIH (pregnancy induced hypertension),instrumental delivery, IUGR, abortions, stillbirths and fetal complications was not much higher in WWE on AED than normal women .Incidence of major congenital anomaly was slightly high(3.12%). WWE on AED are definitely at increased risk for obstetric complication like induction of labor and LSCS. These women definitely need frequent attention regarding folic acid cover, injection vitamin K prophylaxis and control over the seizures.

AIMS & OBJECTIVES

To study the maternal complications and fetal outcome in patients who are known case of epilepsy and on anti-epileptic medication by comparing them with other patients who are non-epileptics.

MATERIALS & METHODS

This is a retrospective study, among two groups, 32 WWE on anti-epileptic drugs (AED) and 35 matched control group (nonepileptic /normal) women. For this study, we have studied cases attending OPD and IPD from january 2013 to october 2014 in CIVIL HOSPITAL, AHMEDABAD. The cases were studied according to obstetric parameters like abortion, IUGR, PIH, PPH, normal delivery/ LSCS, fetal record-birth weight, presence of any gross congenital anomalies, etc. Only women with regular follow up in OPD and having complete details of obstetric records were included in both groups. Women not delivering in this hospital or with incomplete records were not included in the study. PIH was defined as hypertension or BP >140/90 on 2 measurements 6 hours apart after 20 weeks of gestation, along with proteinuria. PROM (premature rupture of membranes) was identified by history of leaking per vaginum and presence of vaginal pool of amniotic fluid on per speculum examination. IUGR was defined as fetal birth weight <2.5kg for fullterm babies. Out of 32 WWE, 7 women were on drug carbamazepine (CBZ), 9 women on valproate, 6 women on levatiracitam, 2 women on gardenal, 4 women on phenytoin and 4 women needed two drugs. Only gross congenital anomalies were taken into consideration.

OBSERVATION & RESULTS

Table:1

	Age of patient			Total
	<20 years	20-30 years	>30 years	
Non-Epileptic	5	25	5	35
	14.28%	71.42%	14.28%	
epileptic	8	22	2	32
	25%	68.75%	6.25%	

This table shows the distribution of patients according to age. Most of the patients, 71.42% in non- epileptic and 68.75% in epileptic are in age group of 20 to 30 years of age.

Table:2

	Parity		Total
	Primi	Multi	
Non-Epileptic	17	18	35
	48.57%	51.42%	
epileptic	14	18	32
	43.75%	56.25%	

This table shows the distribution of patients according to parity. Around 43% in epileptic and 48% in non- epileptic are primi para, rest in both groups are multiparous.

Table:3

	N	Induction	LSCS	NVD
Non – epileptic	35	13 (37.14%)	14 (40%)	20 (57.14%)
epileptic	32	15 (46.87%)	18 (56.25%)	(40.62%)

The above table shows… The rate of **induction of labour** was higher in epileptic group approx 47% than non-epileptic group approx 37%. The rate of **lower section caserion section** was also higher in epileptic patients (56%) than non-epileptic patients(40%). The rate of **normal vaginal delivery** was more commonly seen in non-epileptic patients(57%) than epileptic patients(40%).

Table:4

	Forceps	PIH	IUGR	Anemia
Non – epileptic	1	2	2	2
epileptic	1	4	6	1

This table shows the rate of instrumental delivery, rate of PIH, rate of IUGR incidence of anemia in both groups. The rate of pregnancy induced hypertension (BP >140/90 with proteinuria) was higher in epileptic group than non-epileptic group. The rate of instrumental delivery, anemia make no any significant difference in both groups. The rate of intra uterine growth retardation was quite higher in epileptic group of patients.

CONCLUSION

Till now lots of studies concerning fetal outcome in WWE on AED are done in past few decades especially due to concern of congenital anomalies. Hence, the use of folic acid 5mg preconceptionally is started and useful in reducing neural tube defects in WWE. But much less discussion on maternal obstetric complications was done in WWE. Hence, an attempt is made in this study of total 67 women of which 32 are WWE and 35 are normal women visiting obstetrician regularly till delivery. In our study among the various obstetric parameters studied, induction of labour 46.87% and LSCS 56.25% was higher in WWE than the normal group where induction of labour 37.14% and LSCS 40%. But other parameters PPH, anaemia, instrumental delivery were similar in WWE group and normal group. This could be due to regular follow up, counseling regarding diet, use of folic acid and vitamin K in all patients regularly. In favour of our result there is a population based study from Stockholm ,Sweden by Pilo et al and also study by S V Thomas et al from Kerala, the LSCS rate is increased in WWE group than the normal group. Few women in WWE group did develop PPH, but were controlled by giving uterotonic agents like oxytocin , methargine and prostaglandins. None needed operative treatment. The rate of pregnancy induced hypertension was also higher in women with epilepsy which was well controlled by anti-hypertensive drugs like M-dopa, nifedipine etc. Fetal complications like preterm babies, stillbirth and abortions incidence was similar in the two groups .This is also seen in study by Saleh A.M. et al. Though there are studies in favour of congenital anomalies in fetus, but we have not documented any gross anomalies in our study. May be because less duration of study or only gross anomalies which were taken into consideration or due to patient not taking regular follow up after delivery. No doubt, WWE have uneventful pregnancy and delivery in most of the cases. They did show increased incidence of induction of labour and LSCS in our study. In panic, many WWE after conception stop AED by self which can be more risky if she develops seizure during pregnancy. All of this can be avoided by preconceptional counseling, regular follow up, folic acid cover, ultrasonography to detect anomalies, use of vitamin K and titrate dose of AED as needed. So far as this study concerned, long term follow up of patient is needed to identify all congenital anomalies.

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