



A STUDY OF MODE OF DELIVERY AND ITS IMPACT ON MATERNAL AND PERINATAL OUTCOME IN ECLAMPSIA PATIENTS IN KANACHUR INSTITUTE OF MEDICAL SCIENCES, MANGALORE: A TERTIARY CARE CENTRE.

Gynaecology

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ABSTRACT

The onset of convulsions in a woman with pre-eclampsia that cannot be attributed to other causes is termed eclampsia. Eclampsia is an acute obstetric emergency and swift treatment and prompt decision regarding mode of delivery is required to get the best maternal and fetal outcome. We hypothesized that undertaking cesarean section to achieve immediate delivery when the patient is not in labor, or in early labor, does not produce better outcomes.

KEYWORDS

Eclampsia, Mode of Delivery, Maternal, Perinatal, Outcome.

Introduction:

The onset of convulsions in a woman with pre-eclampsia that cannot be attributed to other causes is termed eclampsia. Eclampsia is an acute obstetric emergency and swift treatment and prompt decision regarding mode of delivery is required to get the best maternal and fetal outcome. Antihypertensives to control the blood pressure, magnesium sulfate as anticonvulsant, and delivery of the patient after stabilization are well-accepted interventions in this condition. However, there is controversy regarding the mode of delivery—whether vaginal or by cesarean section. Eclampsia is responsible for about 12% of all global maternal deaths¹ and about 16-31% of perinatal deaths.^{2, 3, 4} Antihypertensives to control the blood pressure, magnesium sulfate as anticonvulsant, and delivery of the patient after stabilization are well-accepted interventions in this condition. However, there is controversy regarding the mode of delivery—whether vaginal or by cesarean section. Some contend that in eclampsia, delivery should occur within 12 hours of the onset of convulsions.⁵ Pritchard et al⁶ has advocated delivery of the patient as soon as convulsions are controlled and the patient is conscious, and certainly within 48 hours of the initial convulsion. Incidence of cesarean deliveries in eclampsia varies from 26.7-71%.^{6, 7} Immediate cure does not promptly follow delivery by any route in eclamptic women.⁸ In noneclamptic women, serious morbidity is less common when delivery is vaginal. We hypothesized that undertaking cesarean section to achieve immediate delivery when the patient is not in labor, or in early labor, does not produce better outcomes.

AIMS AND OBJECTIVES

- To evaluate and compare the maternal and fetal outcome in eclampsia, in abdominal and vaginal route of delivery, beyond 34 weeks of gestation.

Materials and Methods:

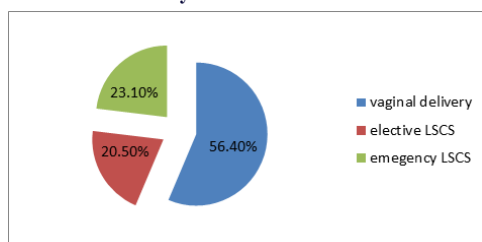
A retrospective clinical study of eclampsia beyond 34 weeks of gestation from August 2017 to May 2018.

The case records were studied w.r.t age, SE status, booking status, gestational age, bishop's score, method of induction, mode of delivery, admission to delivery interval etc including complications.

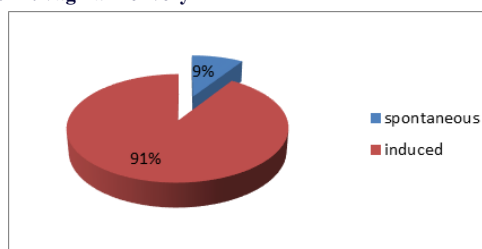
Results:

- Incidence of eclampsia was 4.2%
- 40 cases were beyond 34 weeks.

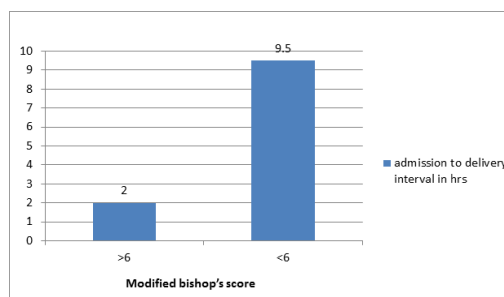
Graph 1: Mode of Delivery



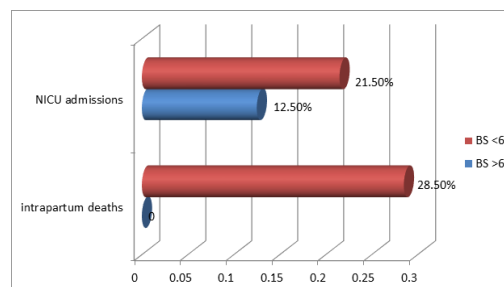
Graph 2: Vaginal Delivery



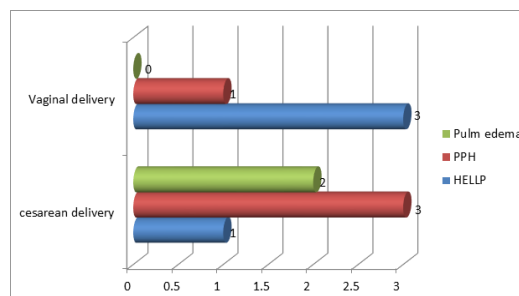
Graph 3: Vaginal delivery group



Graph 4: Perinatal outcome



Graph 5: Maternal complications



Discussion:

	Subratha et al	Present study
34-37 weeks	20%	65%
>37 weeks	80%	35%
Birth weight	2.4kg	2.2kg
Vaginal delivery group	8	4
Cesarean delivery group	10	6
Vaginal delivery	5	7
Cesarean delivery	3	3

Eclampsia itself is not an indication for cesarean delivery. It is indicated only for obstetric causes. Delay in the delivery of fetus and placenta may adversely affect fetal and maternal outcome. Timely caesarean delivery reduces maternal and perinatal mortality and morbidity, beyond 34 weeks of gestation. Eclampsia itself is not an indication for cesarean delivery. It is indicated only for obstetric causes. Delay in the delivery of fetus and placenta may adversely affect fetal and maternal outcome. Timely caesarean delivery reduces maternal and perinatal mortality and morbidity, beyond 34 weeks of gestation. The overall maternal mortality in eclampsia varies from 0.1-4% in developed countries and is around 14% in developing countries.² In our series of eclampsia cases, the maternal mortality rate is around 2%. The reason for high maternal deaths in vaginal delivery in observational studies from developing countries may be due to the fact that moribund cases are allowed to go for a vaginal delivery. All women who died in our series had history of multiple convulsions (>5 convulsions) and were in a comatose state at the time of admission. Thus, the condition of the woman at admission is important and most women die due to complications that arise before admission.⁴

Maternal morbidities related to eclampsia were marginally higher in cesarean delivery group; more women required ventilatory support and transfer to intensive care unit. The duration of hospital stay was also longer in cesarean delivery group and this difference was statistically significant. Some maternal morbidities such as need for blood transfusion, evacuation of hematoma, and intraoperative trauma arose mainly in those allocated to vaginal delivery group, but the subjects ended up in either cesarean delivery or operative vaginal delivery. This may have been due to increased morbidity related to cesarean delivery in late labor,⁶ and difficult instrumental deliveries leading to increased intraoperative trauma, in the group initially assigned vaginal delivery. Perinatal mortality in different observational studies of eclampsia varies from 16.4-30%.^{2, 3, 4} Our study had slightly higher perinatal deaths in vaginal delivery group (5.05% vs 3.97%). However, the overall perinatal mortality was less compared to other studies. This is almost certainly due to exclusion of cases with gestational age <34 weeks or absent fetal heart sound. We had 2 perinatal deaths where difficult instrumental delivery might have contributed.

Although a cesarean delivery may have improved the fetal outcome, on the other hand cesarean delivery in second stage of labor is known to increase the maternal morbidity.⁵

The neonates delivered vaginally were more likely to require intubation and admission to special care nursery. Access to continuous electronic fetal heart monitoring might have improved perinatal outcomes but we had limited access to this facility and therefore did not use it in the study subjects. Although this might fall short of the standard of care in developed countries, we believe that this situation is representative of resource-constrained settings in which the great majority of eclampsia cases occur. Limited diagnostic facilities also prompted us to rely on Apgar at 5 minutes, delivery room intubation, and admission to special care baby unit for >7 days as markers of severe perinatal morbidity rather than “hard” outcomes like necrotizing enterocolitis, intraventricular hemorrhage, or respiratory distress syndrome. Lack of epidural analgesia during labor is another issue that limits the generalizability of the study to developed country settings.

Conclusion:

- This clinical study concludes that there is no difference in maternal and perinatal outcome in vaginal or cesarean delivery.

References:

- Prevention and management of severe pre-eclampsia/eclampsia in Afghanistan. Young Mi Kim, Nasratullah Ansari, Adrienne Kols, Hannah Tappis, Sheena Currie, Partamin Zainullah, Patricia Bailey, Jos van Roosmalen and Jelle Stekelenburg. BMC Pregnancy

and Childbirth 2013, 13:186

- Eclampsia and Perinatal Outcome: A Retrospective Study in a Teaching Hospital. Rajashri yeliwal et al. Journal of Clinical and Diagnostic Research. 2011 October, Vol-5(5): 1056-1059.
- Seal SL, Ghosh D, Kamilya G, et al. Does route of delivery affect maternal and perinatal outcome in women with eclampsia? A randomized controlled pilot study. Am J Obstet Gynecol 2012;206:484.e1-7.
- Retrospective Study of Eclampsia in a Teaching Hospital Pradeep M. R.1*, Lalitha Shivanna. International Journal of Recent Trends in Science And Technology, ISSN 2277-2812 E-ISSN 2249-8109, Volume 8, Issue 3, 2013 pp 171-173.
- Kullima et al.: Maternal mortality associated with eclampsia. Annals of African Medicine Vol. 8, No. 2; 2009:81-84.
- Zwart, J.J., Richters, A., Ory, F., de Vries, J.I., Bloemenkamp, K. W., and van Roosmalen, J. Eclampsia in The Netherlands. Obstet Gynecol. 2008; 112: 820-827
- Miguil, M. and Chekairi, A. Eclampsia, study of 342 cases. Hypertens Pregnancy. 2008; 27: 103-111
- Say, L., Inoue, M., Mills, S., and Suzuki, E. Maternal mortality in 2005 estimates developed by WHO, UNICEF, UNFPA, and the World Bank. World Health Organization, Geneva; 2007