IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 21, Issue 9 Ser.2 (September. 2022), PP 07-10
www.iosrjournals.org

Analysis of 3Delay's leading to progress of pre-eclampsia to ante-partum eclampsia

DrANUSHA YANAMALA[1],Dr REVATHI VELGALETI[2],Dr.SUNITHA.K [3]
DrLAVANYA KUMARI G.C[4]

[1]*(Postgraduate,department of OBG,SriVenkateswara Medical College,Tirupathi,India)*
[2]*(professor ,department of OBG, Sri Venkateswara Medical College,Tirupathi,India)*
[3] *(assistant professor,department of OBG, Sri VenkateswaraMedical College,Tirupathi,India)*
[4]*(Co-Author Post graduate,department of OBG,SriVenkateswara Medical College,Tirupathi,India)*

Abstract: *Analysis of delay in seeking care, delay in reaching the facility on time, delay in receiving treatment is a must to prevent many obstetrical high risk cases to fatal emergency cases leading to increased maternal and perinatal morbidity and mortality. In this study ,factors leading to progression of preeclampsia to antepartum eclampsia were studied.*

A total of 62 women were included in the study.38(61.2%) cases were primipara and remaining multipara i.e 38.8%.literates contribute for 26% with basic primary education. Rural areas with difficult in transport or far away from health care facility contributes to 66%. And remaining 34% are from semi urban and urban areas. No of cases referred immediately: 8 No cases which were delayed because of decision making by family: 17(27.42%). No of cases delayed because of delay in transport: 23(37%). No cases accompanied by health care workers: 48 cases (77.42%). No of cases referred with standard format :20 cases (32. 2%).No of cases where complete basic treatment i.e complete loading dose was given 12(19.35%).No cases where complete history regarding treatment and general condition was mentioned: 16(25.8%)

Date of Submission: 24-08-2022 Date of Acceptance: 07-09-2022

I. Introduction

Safe mother hood is an undeniable human right[1]. India had achieved a remarkable decline in MMR BY 22%[5]. MMR of 167 in 2011-2013 was dropped to 130 in 2014-2016.As per WHO hypertensive disorders remain leading cause of MMR, Hemorrhage, infection, hypertension forming the deadly triad[3]. There are 3 delays leading to maternal deaths in India.

1.delay in seeking care.
2.delay in reaching the facility on time.
3.delay in receiving treatment.

These three delays contribute to major chunk in antepartum eclampsia.

Antepartum eclampsia is the severe form of eclampsia characterized by sudden onset of Generalized tonic clonic seizures or coma during pregnancy or postpartum[3]. Incidence of antepartum in eclampsia in India is 1-3.5% .pre-eclampsia gives us enough time before getting converted to antepartum eclampsia and subsequent consequences. Still we could not use that valuable time leading to delay in diagnosis and treatment.

Golden hour is lost because of above said 3 factors converting them from preeclampsia to antepartum eclampsia where the problem can be nipped at bud and thus leading to greater maternal and perinatal mortality and morbidity. Annually it is estimated that 44,000 women die due to preventable causes of pregnancy and globally 800 women die every day due pregnancy and child birth and India contributes to 20% of these deaths.

Perinatal mortality and morbidity in India : India accounts for highest burden of under5 deaths. Most common cause being the preterm and prematurity accounting to 35%.Hypertension is the leading cause for perinatal mortality rate[4].

Co-ordination between levels in the delivery system and fragmentation of care accounts for poor quality of maternal health care In Indiain spite ofnationwide scale up of emergency referral systems and maternal death audits and improvement of governance at all levels[2].

The three delays play a major role[4] .

1.Delay in seeking care: this is on part of family and relatives; it is overcome by the presence of skilled birth attendants who visits the home directly, but still illiteracy contributes delay in seeking care despite the efforts.

Patients are warned of danger signs and signals of eclampsia motivated to get admitted but not getting admitted and finally presenting as antepartum eclampsia cases.
2.Delay in reaching facility on time: this is overcome by the provision of 108 vehicles.
3.Delay in receiving treatment: this is overcome by adequate care at primary centers and referring to tertiary care center on time and proper coordination between referring and referral institute.
A women presenting at a PHC or CHC with complaints of imminent eclampsia or antepartum eclampsia the basic protocol is to give base line treatment that is anti-hypertensive, to start hydration, give MgSo4 full loading dose and then refer the patient to nearbytertiary care center after full counselling and giving a choice to the patient to choose the institute and arranging transport facility .health care worker preferably a doctor, Asha or ANM have to accompany the patient to tertiary Centre. Before referring a patient complete details of referral with complete history and treatment history has to be written in NRHM standard referral slip and prior intimation has to be given to the referring institute so that requirements will be arranged and the team will be alerted.
If there is proper co-ordination in the fallowing steps then maximum no of mothers and infants can be saved.

II. Materials And Methods

This is prospective observational study done at government maternity hospital Tirupathi . All the antenatal mothers and post-natal mothers admitted in Government maternity hospital Tirupathi with antepartum eclampsia were studied and 3 delays were evaluated.

All the cases were evaluated whether they are referred from other centers and attending directly from home. whether they are booked case or uncooked case, Cases with DE novo hypertension, if previous high bp recording were high, if high were they advised for admission and educated for danger signals and signs and regular surveillance was done or not. Cause for not seeking admission. Referred on time or not, if not cause for the delay. If referred was it done in prescribed format or not, if basic treatment was given or not,complete details of treatment and history was mentioned or not whether prior intimation was given at referral institute and two-way communication maintained or not. outcomesconcerned: contribution to maternal mortality and morbidity. perinatal deaths preterm infants and perinatal mortality iud and still births. post-partum surveillance till 6 weeks. Analysis for delay was calculated.

Statistical analysis: All the information collected and recorded in the pre designed pro forma, the data was entered in the MS excel sheet and analyzed using Epi Info V7. statistical significance for continuous variables will be tested using student t-test. Frequencies will be described using percentages.

III. Results

A total of 62 women were included in the study.38(61.2%) cases were primipara and remaining multipara i.e 38.8%.literates contribute for 26% with basic primary education.Rural areas with difficult in transport or far away from health care facility contributes to 66% and remaining 34% are from semi urban and urban areas.

No of cases with DE novo hypertension is17 cases (27.4%)No of cases with previous high bp recordings but non severe hypertension on regular monitoring22(35.4%)No cases with severe hypertension on antihypertensive 23(37%). No of cases with severe hypertension with surveillance i.e with regular monitoring of B.P and proteinuria but not willing for admission only 4.No of cases with severe hypertensionnon-compliant for medication and ANC'S : 19(30.6%).No cases presented with imminent symptoms and referred to referral institute before development of GTCS: 5

NO of cases who had imminent symptoms prior advised admission prior but still not taken treatment: 13(20.9%).

No of cases referred immediately: 8No cases which were delayed because of decision making by family: 17(27.42%) .No of cases delayed because of delay in transport: 23(37%). No cases accompanied by health care workers: 48 cases (77.42%). No of cases referred with standard format :20 cases (32.2%).No of cases where complete basic treatment i.e complete loading dose was given 12(19.35%).No cases where complete history regarding treatment and general condition was mentioned: 16(25.8%).Two way communication was not maintained and prior intimation was not given at referral institute. cases were surveillance was done at referral institute was 40 cases after 2weeks and 22 cases after 6 weeks.Complications maternal abruption in 23 cases, iud and still birth in 14 cases and preterm induction in 46 cases,HELLP syndrome in 4 cases, persistent hypertension in 2 cases, preterm labor in 46 cases.Perinatal mortality 18, NICU admission in 28.

S.NO	CASES	NO OF CASES	PERCENTAGE(N=62)
1	DENOVO cases	17	27.4
2	WITH H/O HYPERTENSION	46	74.1
3	HTN ON SURVILLANCE	27	43.54
4	HTN WITHOUT SURVILLANCE	19	30.6
5	WITH MILD/MOD HTN	40	64.5
6	WITH SEV HTN	6	9.67
7	BOOKED CASES/PRIOR ANCS	39	62.9
8	UNBOOKED/NO ANC'S	23	37
9	Cases DIRECTLY FROM HOME	18	29
10	REFERRED CASES	44	70.9

DELAY AT TRANSIT AND REFERRAL

S.NO	FACTOR	NO	PERCENTAGE(N=44)
1	STANDARD REFERRAL FORMAT	20	45
2	PRIOR INTIMATION	0	0
3	TWO WAY COMMUNICATION	0	0
4	BASIC TREATMENT WITH FULL LOADING DOSE OF MgSo4	12	27.2
5	HEALTH CARE WORKERS ACCOMPANYING	34	77
6	COMPLETE HSITORY	16	36

MATERNAL AND PERINATAL OUTCOMES

S.NO	COMPLICATION	NO	PERCENTAGE(N=620
1	MATERNAL DEATH	1	1.6
2	ABRUPTION	23	37
3	IUD	14	22.5
4	PRETERM LABOR	46	74.1
5	OPERATIVE INTERFERENCE	22	35.4
6	OTHERS	6	9.6

PERINATAL OUTCOMES

S.NO	COMPLICATION	NO	PERCENTAGE(N-=62)
1	IUD AND STILL BIRTHS	18	29
2	NICU ADMISSION	28	45
3	PRETERM	46	74.1
4	IUGR	32	51.6
5	LOW BIRTH WEIGHT	40	64.5

IV. Discussion

It is evident from the study that there is delay at all the levels resulting in the price paid in the form of maternal and perinatal mortality and morbidity. Delay at level 1 i.e at seeking health care is because of illiteracy leading to inability to understand the gravity of the situation, poor decision making of the family and reluctance towards counselling seen most commonly in multigravida women. To overcome this health workers, need a little more penetrance into the society and better surveillance of high risk cases. Delay in transport is because of non-availability of 108,poor road and poor means of transport resulting in loss of golden hour waiting for the vehicle or arranging vehicle and another cause for delay is inability to decide despite explaining the risk.

The other delay which has to be addressed is the transit time and presenting at the referral institute. From the above study it is evident that no two-way communication or prior intimation was given in any of the referral cases. The essence of proper referral is two way communication which is absolutely lacking.Standardized referral format with full details regarding the history of disease ,condition of the patient at the time of arrival, reason for referring a particular case and treatment given was not mentioned completely in any referral. The reason for this delay is improper or inability of health care professional in terms of knowledge regarding proper referral and importance to refer on time. This will result in improper coordination whether a particular treatment was given or not, time is wasted in communicating simple things which can be saved if referred in standard protocol.

Proper communication has to be there in between different levels of health care system so that proper treatment as well as postpartum surveillance will be ensured.

The maternal and perinatal mortality and morbidity because of antepartum eclampsia werecomparable with that of national statistics were eclampsia contributes to 12% .

V. Conclusion

By creating awareness among the referral seeking people and strengthening the referral system, the delay in transit time of pre eclampsia to antepartum eclampsia can be reduced.a larger field studies are required to affirm the above.

[1]. WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. 2011. Available at http://apps.who.int/iris/bitstream/10665/44703/1/9789241548335_eng.pdf. Accessed on 25 April 2016.
[2]. Sibai BM. Diagnosis, prevention and management of eclampsia. Obstetr Gynecol. 2005;105(2):402-10.
[3]. Choudhary P. Eclampsia: a hospital based retrospective study. Kathmandu Uni Med J. 2003;1(4):237-41.
[4]. Nadkarni J, Bahl J, Parekh P. Perinatal Outcome in Pregnancy Associated Hypertension. Indian Pediatrics. 2001;38:174-8.
[5]. unicef.in.whatwedo maternal –health
[6]. https://www.ncbi.nlm.nih.gov
[7]. https;//www.downtoearth.org.in

DrANUSHA YANAMALA, et. al. "Analysis of 3Delay's leading to progress of pre-eclampsia to ante-partum eclampsia." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 21(09), 2022, pp. 07-10.