



OBSTETRIC EMERGENCIES

Gynaecology

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ABSTRACT

Objectives: To study various types of Obstetrics Emergencies admitted in Tertiary Care Hospital & to evaluate foeto-maternal outcome in this cases.

Material & Methods: This is a prospective observational study of 455 cases of obstetrics emergencies admitted at our Tertiary care hospital during period of July 2013 to July 2015. Evaluation of patients by detailed history, clinical examination, routine and special investigation and ultrasonography were carried out. Patients admitted with normal labour were excluded.

Result: Various emergencies studied were Pre-Eclampsia(24.61%), Eclampsia(8.57%), PPH(14.28%), Accidental Haemorrhage(7.91%), Placenta previa(4.83%), Incomplete Abortion(10.32%), Ectopic Pregnancy (4.61%), cardiac Disease with pregnancy (12.08%) and severe anaemia with labour (12.47%). Of these 85.72% were Emergency cases, 14.28% were booked cases, and 13.96% were referred cases. 70 % cases had no antenatal visits. Maternal mortality occurred in 5.71% and stillbirth in 13.18%, neonatal death in 8.79% and 20.43% were premature babies

Conclusion: It is found that poor socio-economic lack of human resources and facilities at many sub centres are the pitfalls in implementation and utilisation of our community obstetric care services. Foeto maternal morbidity and mortality can be reduced by early diagnosis and timely reference and intervention during antepartum, intrapartum or post-partum period.

KEYWORDS

Post-partum Haemorrhage (PPH), Emergency Obstetric Care Service (EmOCS), Referred Cases, PHC, CHC.

INTRODUCTION

Every year nearly three million women die due to pregnancy related complications. For every women who die at least 20 more suffer injury, infection or disability. The vast majority of maternal deaths and injuries are avoidable if women have timely access to required emergency care. Basic emergency obstetric care by skilled birth attendants or timely referral for further comprehensive emergency obstetric care can reduced maternal deaths and disabilities significantly.

The teaching and service hospitals look after those women admitted to their institution. They run antenatal clinic on their own campus. Attendance at these clinics by patients is very irregular. Sometimes patients are coming in morbid condition even though they are booked cases.

In Civil Hospital Ahmedabad patients are coming from Rural area and sometimes also from some district Hospital where the facilities for Blood transfusion, anaesthesia and operative facilities are not there, such patients are coming in very late stages and hence the total emergency rate in this hospital is very high.

It is now universally recognised that most effective strategy for reduction in Foeto-maternal morbidity and mortality due to complications of pregnancy and delivery is to provide emergency obstetrics care services (EmOCS) within reach of all pregnant women. Early diagnosis, planned treatment and good antenatal care are main factors for reduction in Obstetric emergencies like malpresentation, contracted pelvis, antepartum haemorrhage, pre eclampsia and eclampsia.

AIMS AND OBJECTIVE OF STUDY

1. To study various types of Obstetrics Emergencies admitted in Tertiary Care Hospital.
2. To study foeto-maternal outcome in various Obstetric Emergencies admitted in Tertiary Care Hospital.

MATERIALS AND METHODS

The study was conducted at Department of Obstetrics and gynaecology in Civil Hospital Ahmedabad between July 2013 to July 2015.

Study population: Randomly selected 455 patients with obstetric emergency during this period.

Study Design: Prospective Observational study.

Exclusion Criteria: Normal labouring patients

All data were collected and analysed by as prefix Performa and foeto maternal outcome were analysed.

OBSERVATION AND DISCUSSION

This prospective observational study consist of 455 patients with obstetric emergencies admitted in OBGY department at our Tertiary care hospital during July 2013 to July 2015. All relevant data and parameters were collected recorded according to standard proforma and were analysed as follows.

Table-1: Type of Obstetric Emergency:

Type of obstetric emergency	Total no of patients 455
Pre-eclampsia	112(24.61%)
Eclampsia	39(8.57%)
Cardiac disease with pregnancy	55(12.08%)
Post-partum haemorrhage	65(14.28%)
Abruption	36(7.91%)
Placenta previa	22(4.83%)
Incomplete abortion	47(10.32%)
Ectopic pregnancy	21(4.61%)
Severe anaemia with labour	58(12.47%)

Table-2: Obstetric Emergencies in booked and emergency patients

Total no of pt.	Booked	Emergency
455	65(14.28%)	390(85.72%)
Type of emergency		
Pre-eclampsia	32(58.57%)	80(71.43%)
Eclampsia	2(13.13%)	37(94.87%)
Accidental haemorrhage	7(19.44%)	29(80.56%)
Placenta previa	4(18.19%)	18(81.81%)
Cardiac disease with pregnancy	10(18.18%)	45(81.82%)
Severe anaemia with labour	0	58(100%)
Ectopic pregnancy	0	21(100%)
Incomplete abortion	0	47(100%)
PPH	10(15.39%)	55(84.61%)

Out of 455 cases 65(14.28%) patients were booked while 390(85.72%) patients were emergency cases. Those patients who have not taken ANC required emergency admission in large number.

Table-3: Referred cases:

Total no pt.	Cases referred from PHC	Cases referred from CHC	Cases referred from private hospital
455	13(28.57%)	93(20.43%)	44(9.67%)
Pre-eclampsia	4(3.57%)	17(15.17%)	9(8.03%)
Eclampsia	3(7.69%)	14(35.89%)	4(10.25%)
Accidental haemorrhage	1(2.77%)	7(19.44%)	7(19.44%)
Placenta previa	0	4(18.18%)	1(4.54%)
Cardiac disease with pregnancy	0	9(16.36%)	4(7.27%)
Severe anaemia with labour	3(5.17%)	18(31.03%)	4(6.89%)
Ectopic pregnancy	0	5(23.80%)	3(14.28%)
Incomplete abortion	0	4(8.51%)	2(4.26%)
PPH	2(3.07%)	15(23.07%)	10(15.38%)

Out of 455 cases 150(32.96%) cases are referred from other centre.

Table-4: Antenatal care

Total no pt.	No antenatal care	antenatal care taken at PHC	Antenatal care taken CHC	Antenatal care taken at private hospital	Antenatal care in our institute
455	318(69.89%)	17(3.73%)	24(5.27%)	31(6.81%)	65(14.28%)
Pre-eclampsia	55(49.10%)	10(8.92%)	6(5.35%)	9(8.03%)	32(28.57%)
Eclampsia	29(74.35%)	2(5.12%)	3(7.69%)	3(7.69%)	2(5.12%)
Accidental haemorrhage	21(58.33%)	1(2.77%)	2(5.55%)	5(13.88%)	7(19.44%)
Placenta previa	12(54.54%)	1(4.54%)	3(13.63%)	2(9.09%)	4(18.18%)
Cardiac disease with pregnancy	36(65.45%)	1(1.81%)	3(5.45%)	5(9.09%)	10(18.18%)
Severe anemia with labour	58(100%)	0	0	0	0
Ectopic pregnancy	21(100%)	0	0	0	0
Incomplete abortion	47(100%)	0	0	0	0
PPH	39(60%)	2(3.07%)	7(10.76%)	7(10.76%)	10(15.38%)

Importance of antenatal care in reducing obstetrical emergency is highly significant. In this study 318(69.89%) patients didn't take antenatal care. Obstetrician must show further alert even in patients taking antenatal visit because 30% of patients who take antenatal care also required obstetrical treatment on emergency.

Table-5: Relation with Residence

Total no of pt.	Urban	Rural
455	361(79.34%)	94(20.66%)
Type of emergency		
Pre-eclampsia	102(91.07%)	10(18.93%)
Eclampsia	30(76.92%)	9(13.08%)
Accidental haemorrhage	31(86.11%)	5(13.89%)
Placenta previa	20(90.90%)	2(9.10%)
Cardiac disease with pregnancy	40(72.72%)	15(27.28%)
Severe anemia with labour	20(34.48%)	38(65.52%)
Ectopic pregnancy	16(76.19%)	5(25.81%)
Incomplete abortion	39(82.97%)	8(17.03%)
PPH	63(96.92%)	2(3.18%)

Out of 455 patients, 361(79.34%) patients were from urban area and 94(20.66%) patients were from rural area.

Even in urban area emergency admission are more suggesting lack of awareness of health services.

Table-6: Relation with age:

Age in year	≤20	21 to 30	>30
Type of emergency	18(3.95%)	364(80%)	73(16.05%)

Pre-eclampsia	3(2.67%)	97(86.60%)	12(10.71%)
Eclampsia	2(5.12%)	36(92.30%)	1(2.56%)
Accidental haemorrhage	1(2.77%)	25(69.44%)	10(27.77%)
Placenta previa	2(9.09%)	16(72.72%)	4(18.18%)
Cardiac disease with pregnancy	0	50(90.90%)	5(9.10%)
Severe anemia with labour	3(5.17%)	38(65.51%)	17(29.31%)
Ectopic pregnancy	3(14.28%)	12(57.14%)	6(28.57%)
Incomplete abortion	1(2.12%)	38(80.85%)	8(17.02%)
PPH	3(4.61%)	52(80%)	10(15.38%)

Out of 455 patients, 364(80%) cases belong to 21 to 30 years of age group being child bearing age group.

Table-7: Relation with parity:

Parity	0 to 1	2 to 3	≥4
Total no. of patients 455	207(45.49%)	207(45.49%)	41(9.01%)
Type of emergency			
Pre-eclampsia	64(57.14%)	45(40.17%)	3(2.67%)
Eclampsia	30(76.92%)	9(23.02%)	0
Accidental haemorrhage	8(22.22%)	22(61.11%)	6(16.66%)
Placenta previa	6(27.27%)	15(68.18%)	1(4.54%)
Cardiac disease with pregnancy	27(49.09%)	27(49.09%)	1(1.81%)
Severe anemia with labour	18(31.03%)	24(41.37%)	16(27.58%)
Ectopic pregnancy	12(57.14%)	9(42.85%)	0
Incomplete abortion	25(53.19%)	10(21.27%)	12(25.53%)
PPH	17(26.15%)	46(70.76%)	2(3.07%)

Out of 455 patients primipara were seen in 207(45.49%) patients, parity 2 to 3 seen in 207(45.49%), parity ≥4 seen in 41(9.01%) cases.

Pre-eclampsia and eclampsia primipara patients were more as it more common with primipara patient, compare to 52% in Sibai et al^[1] study.

Incidence of APH is more with multipara. In present study out of 58 patients of APH, 37(63.79%) patients were multipara, compared to 73% in Kevin Nandonde, 2013^[2].

PPH are more common with multipara patients.

Table-8 mode of delivery in obstetric emergencies cases:

Mode of delivery	Normal delivery	LSCS	Instrumental deliveries
Type of emergency			
Pre-eclampsia	59(52.67%)	53(47.32%)	0
Eclampsia	15(38.46%)	24(61.53%)	0
Accidental haemorrhage	17(47.22%)	19(52.77%)	0
Placenta previa	2(9.09%)	20(90.90%)	0
Cardiac disease with pregnancy	36(65.45%)	17(30.90%)	1(1.81%)
Severe anemia with labour	44(75.86%)	14(24.14%)	0

In this study out of 151 cases of eclampsia and pre-eclampsia 77(50.99%) required LSCS and 74(49.01%) had normal vaginal deliveries. LSCS rate is high in eclampsia and pre-eclampsia because it is important to delivered baby as early as possible to bring down blood pressure which is due to pregnancy.

In accidental hemorrhage LSCS rate is high 52.78%, mainly to improve fetal salvage and to reduce maternal complication. As compare to 31% in Soma Mukhaerjee, 2009^[3].

In cardiac disease with pregnancy out of 54 cases 17(30.90%) patients taken for LSCS, obstetric indication were in 13(76.47%) patients and 4(13.53%) patients were taken for LSCS for cardiac indication like bicuspid aortic valve, pulmonary hypertension.

Table-09: Anemia at the time of admission:

	severe	Moderate	Mild
Type of emergency	Total: 114 (25.05%)	Total: 145 (31.86%)	Total: 105 (23.07%)
Pre-eclampsia	4(3.57%)	33(29.46%)	44(39.28%)
Eclampsia	1(2.56%)	6(15.38%)	8(20.51%)
Accidental haemorrhage	9(25%)	22(61.11%)	4(11.11%)
Placenta previa	9(40.90%)	10(45.45%)	2(9.09%)

Cardiac disease with pregnancy	2(3.63%)	24(43.63%)	18(32.72%)
Severe anemia with labour	58(100%)	0	0
Ectopic pregnancy	6(28.57%)	8(38.09%)	4(19.04%)
Incomplete abortion	15(31.91%)	24(51.06%)	2(4.25%)
PPH	10(15.38%)	18(27.79%)	23(35.38%)

The association of severe anemia in these study was 114(25.05%), moderate anemia in 145(31.86%) cases, mild anemia in 105(23.07%) cases.

Severe and moderate anemia are more common in patients who required emergency admission.

Table-10: Obstetric emergency and blood transfusion:

Type of obstetric emergency	No. of patients blood transfusion received
Total no. of patients 455	239(52.52%)
Pre-eclampsia	14(12.5%)
Eclampsia	5(12.82%)
Accidental haemorrhage	35(97.22%)
Placenta previa	22(100%)
Cardiac disease with pregnancy	2(3.63%)
Severe anemia with labour	58(100%)
Ectopic pregnancy	19(90.47%)
Incomplete abortion	19(40.42%)
PPH	65(100%)

Out of 455 cases blood transfusion required in 239(52.52%) cases. Rate of blood transfusion is high in patient's required emergency admission.

Table-11: Maternal mortality

Type of obstetric emergency	Total no. of maternal mortality 26(5.71%)
Pre-eclampsia	4(15.38%)
Eclampsia	3(11.53%)
Cardiac disease with pregnancy	3(11.53%)
Accidental hemorrhage	2(7.69%)
Placenta previa	2(7.69%)
PPH	12(46.15%)

Out of 455 patients 26(5.71%) maternal mortality occurred from which 4(15.38%) were from pre-eclampsia, 3(11.53%) were from eclampsia, 3(11.53%) were from cardiac disease, 2(7.69%) were from accidental hemorrhage, 2(7.69%) were from placenta previa and 12(46.15%) were from PPH.

Maternal mortality is higher in patients who required emergency admission and didn't take antenatal care.

Table-12: Perinatal outcome:

Total no.	Still birth	Neonatal death	Premature babies
455	60(13.18%)	40(8.79%)	93(20.43%)
Pre-eclampsia	13(11.60%)	14(12.5%)	33(29.46%)
Eclampsia	4(10.25%)	3(7.69%)	9(23.07%)
Accidental hemorrhage	22(61.11%)	3(8.33%)	7(19.44%)
Placenta previa	4(18.18%)	4(18.18%)	6(27.27%)
Cardiac disease with pregnancy	1(1.81%)	4(7.27%)	14(25.45%)
Severe anemia with labour	8(13.89%)	7(46.55%)	15(25.86%)
Ectopic pregnancy	-	-	-
Incomplete abortion	-	-	-
PPH	9(13.84%)	5(7.69%)	9(13.84%)

In present study 60(13.18%) were still birth, 40(8.79%) neonatal death occurred, 93(20.43%) were premature babies.

SUMMARY

In our study, 455 cases of Obstetrics Emergencies were studied. Cases studied include Pre-Eclampsia (24.61%), Eclampsia(8.57%), PPH(14.28%), Accidental Haemorrhage(7.91%), Placenta previa (4.83%), Incomplete Abortion(10.32%), Ectopic Pregnancy (4.61%), cardiac Disease with pregnancy (12.08%) and severe anaemia with labour (12.47%).Of these, emergency cases were 390(85.72%), booked cases were 65(14.28%) and 150(32.96%) cases were referred cases.

Out of 455 cases, antenatal care was taken by only 137(30.10%) patients, while the large number of patients 318(69.90%) did not took antenatal visit. 361(79.34%) were from urban area and 94(20.66%) were from rural area. 364(80%) were fall in to 21 to 30 years of age group being child bearing age.

Out of 455 patients primipara were seen in 207(45.49%) patients, parity 2 to 3 seen in 207(45.49%), parity ≥ 4 seen in 41(9.01%) cases. Pre-eclampsia and eclampsia primipara patients were more as it more common with primipara patient out of 151 patient 94(62.25%) patient were primipara. Incidence of APH is more with multipara. In present study out of 58 patients of APH, 37 (63.79%) patients were multipara.

The association of severe anemia was seen in 114 (25.05%) cases, moderate anemia in 145(31.86%) cases, and mild anemia in 105 (23.07%) cases. 239 (52.52%) patients required blood transfusion.

Out of 455 patients 26(5.71%) maternal mortality occurred from which 4(15.38%) were from pre-eclampsia, 3(11.53%) were from eclampsia, 3(11.53%) were from cardiac disease, 2(7.69%) were from accidental hemorrhage, 2(7.69%) were from placenta previa and 12(46.15%) were from PPH. In present study 60(13.18%) were still birth, 40(8.79%) neonatal death occurred, 93(20.43%) were premature babies.

CONCLUSION

The study emphasizes the need to extend the scope of preventive obstetrics to our peripheral areas. It is necessary to extend access and utilization of emergency obstetric care at rural and remote areas of developing countries to reduce maternal mortality. Emergency obstetric care depends upon various factor for emergency obstetric care, there is need to start work from household to health facilities, various factor may create delay in seeking emergency obstetric care. Timely decision making at the household level, reaching to health facilities, right diagnosis and management of problem at health facilities, continuous monitoring and discharge with required counseling are the critical step of emergency obstetric. Education of patient about their high risk condition and steps to be taken at their level is also important. Identify antenatal women by health worker within their work areas and encourage these women to take antenatal visit is also important.

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