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Original Research Article

Study Of Obstetrics Referrals to A Tertiary Care Centre: A Cross Sectional Study

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Abstract

Background: Maternal mortality remains a major challenge to health systems worldwide. Women in developing countries often face serious health risks during pregnancy and delivery due to poor access to early and appropriate referrals. Especially in developing country like India, major population lives in rural areas lacking access to essential obstetric facilities. In such areas timely referral of obstetric cases can reduce maternal morbidity and avoid maternal deaths. The referral system is an essential component of any health systems which is particularly important in pregnancy and childbirth for providing access to essential obstetric care. Hence the study was conducted to review the reasons for referral of obstetric cases referred to department of Obstetrics and Gynaecology at tertiary care centre.
Methods: A cross sectional study was carried out in department of Obstetrics and Gynaecology at tertiary care centre during the study period from Jan 2019 to Jan 2020 on all 1067 referred obstetric cases to the hospital. Detailed history of the patients who had been referred from different centres was taken, taking note of the referring centre and reason for referral. Thus all data was collected and compiled in Microsoft excel. Appropriate test was applied for analysis under SPSS software version 21 and P value <0.05 was taken significant.
Results: Majority of cases belonged to age group 20-24 years (52.57%) and 80.3% cases were from rural area. Reasons for referrals among total cases of 906 were Precclampsia 218 (20.43%), ecclampsia 60 (5.62%), previous LSCS 158 (14.81%), Preterm labour 106 (9.93%), PROM 70 (6.56%), Postdated 39 (3.66%), oligohydromnias 33 (3.09%), Breech 23 (2.16%), PPH 22 (2.06%), APH 19 (1.78%), CPD 19 (1.78%), Twins 19 (1.78%), GDM 17 (1.59%), IUGR 12 (1.12%), Placenta previa 12 (1.12%), Rh negative 9 (0.84%), IUD 11 (1.03%), Others 220 (20.62%) respectively.
Conclusion: The present study has shown that peripheral health care system needs to be strengthened and practice of early referral needs to be implemented for better maternal and perinatal outcome. Health education to the community, high risk pregnancy identification and proper antenatal, intra-natal and postnatal care will reduce the incidence of obstetrical referrals.

Keywords: Obstetrics, Referrals, Tertiary care centre

Introduction

Maternal mortality remains a major challenge to health systems worldwide. It is estimated

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that every year, about 358,000 women die globally from causes related to pregnancy complications and childbirth. Ninety-nine percent of these deaths occur in developing countries, with 313,000 occurring in South Asia and Sub-Saharan Africa alone. Even though pregnancy and childbirth are physiological processes bringing happiness to a couple these are associated with risks and complications, sometimes taking life of a woman and her baby if they are not taken care of in time. Especially in developing country like India, major population lives in rural areas lacking access to essential obstetric facilities. In such areas timely referral of obstetric cases can reduce maternal morbidity and avoid maternal deaths. The referral system is an essential component of any health systems which is particularly important in pregnancy and childbirth for providing access to essential obstetric care [1, 2].

Women in developing countries often face serious health risks during pregnancy and delivery due to poor access to early and appropriate referrals. Despite studies that show clear linkages between timely referrals and improved maternal outcomes, challenges still remain in the referral process, particularly in rural communities [1]. It is still recommended to electively refer pregnant woman with high risk pregnancy, for delivery before any complication arise to a health care centre where all the facilities to deal with the complications are available. India has implemented many interventions to reduce the MMR, including schemes to strengthen health infrastructure and to improve the proportion of institutional deliveries [2].

The National Health Policy of India has envisaged a target for MMR of 100 per lakh live births by 2020. According to a study, 92% of maternal deaths are an outcome of delay in referral and leading to delay in case management [3]. Obstetric patients constitute the bulk of referred cases in any tertiary care hospital. In developing nations like India where the majority of people reside in rural areas and lack vital obstetric care, it's very important that such patients should be identified and timely referred to the advanced centres, so that early treatment leads to improved maternal and foetal outcome [4]. Hence the study is to review the reasons for referral of obstetric cases referred to department of Obstetrics and Gynaecology at tertiary care centre.

Material and Methods

A cross sectional study was carried out in department of Obstetrics and Gynaecology at tertiary care centre during the study period from Jan 2019 to Jan 2020. Study was conducted on all referred obstetric cases to the hospital. Thus such 1067 cases were studied. Inclusion criteria:

1. All obstetric cases referred to the Obstetrics and gynaecology department at tertiary care centre.
2. Obstetric cases directly admitted to ICU. Detailed history of the patients who had been referred from different centres was taken, taking note of the referring centre and reason for referral.

All collected data were filled in a predefined proforma. Complete physical and Obstetric examination and basic investigations as well as case specific investigations were carried out as mandated by the clinical condition of the patient. Thus all data was collected and compiled in Microsoft excel. Appropriate test was applied for analysis under SPSS software version 21 and P value <0.05 was taken as significant.

Results

Majority of cases belonged to age group 20-24 years (52.57%). 80.3% cases were from rural area.

Table 1: Distribution of subjects according to education

Education	No.	Percentage

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Illiterate	18	1.69
Primary	7	0.66
Secondary	150	14.06
Higher Secondary	730	68.41
Graduates & above	162	15.18
Total	1067	100.00

It was observed from Table 1 that education wise majority 68.41% cases were studied till higher secondary class followed by graduates 15.18% and 14.06% up to secondary education.

Table 2: Type of referring centre

Distribution of subject according to type of referring centre		
Type of referring centre	**No.**	**Percentage**
Rural Hospitals/Primary Health Centres, Sub Centres	432	40.49
District hospitals/Sub District Hospitals	269	25.21
Medical colleges	309	28.96
Private hospitals	57	5.34
Total	1067	100.00

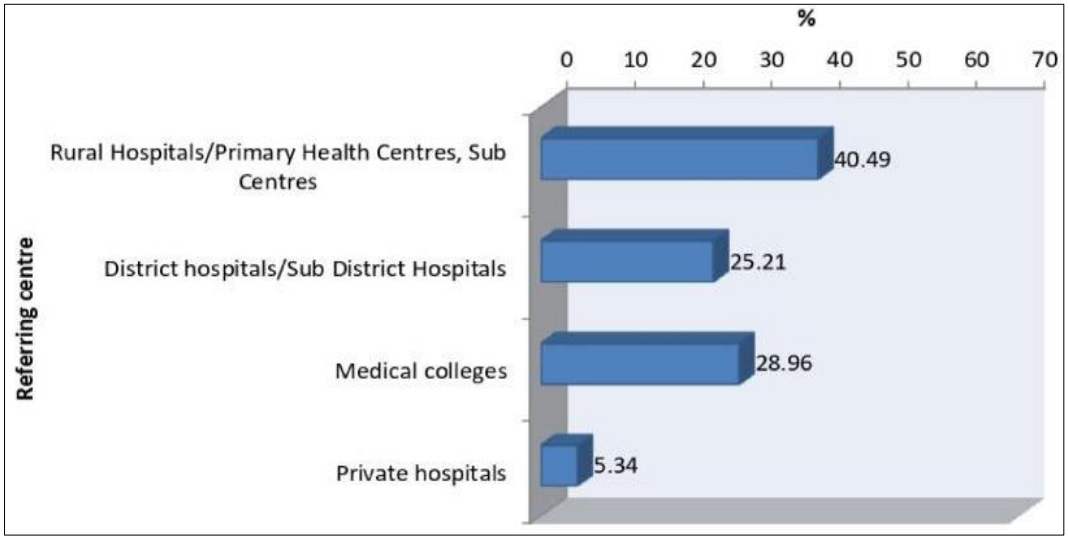

Fig 1: Distribution of subjects according to type of referring centre

As Table 2 revealed that among total cases taken 1067 were grouped into categories according to referring centre such that 432 (40.49%) cases was referred from rural hospital/PHC/sub centre, 269 (25.21%) cases from District and Sub District hospital, 309 (28.96%) cases from medical college, 57 (5.34%) cases were from private hospital respectively.

Table 3: Obstetric cause for referral

Distribution of subjects according to Obstetric Cause		
Obstetric Cause	**No.**	**Percentage**
Pre-eclampsia	218	24.06
Eclampsia	60	6.62
Previous LSCS	158	17.44
Preterm Labour	106	11.70
PROM	70	7.73
Postdated	39	4.30
Oligohydromnias	33	3.64
BREECH	23	2.54
PPH	22	2.43

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APH	19	2.10
CPD	19	2.10
Twins GDM	19, 17	2.10, 1.88
IUGR	12	1.32
Placenta Previa	12	1.32
IUD	11	1.21
Loop of cord around neck	10	1.10
Non progress of labour	9	0.99
RH negative	9	0.99
Elderly Primi	6	0.66
Postmaturity	6	0.66
Haemoperitonium	4	0.44
BOH	3	0.33
ECTOPIC	3	0.33
GEST HT	3	0.33
HELLP-	3	0.33
Status Ecclampticus	3	0.33
Transverse Lie	3	0.33
Fetal Distress	2	0.22
Molar Pregnancy	2	0.22
Obstructed labour	2	0.22
Total	906	100

As Table 3 showed that the reasons for referrals among total cases of 906 were Precclampsia 218 (20.43%), ecclampsia 60 (5.62%), previous LSCS 158 (14.81%), Preterm labour 106 (9.93%), PROM 70 (6.56%), Postdated 39 (3.66%), oligohydromnias 33 (3.09%), Breech 23 (2.16%), PPH 22 (2.06%), APH 19 (1.78%), CPD 19 (1.78%), Twins 19 (1.78%), GDM 17 (1.59%), IUGR 12 (1.12%), Placenta previa 12 (1.12%), Rh negative 9 (0.84%), IUD 11 (1.03%), Others 220 (20.62%) respectively.

Discussion

Timeliness and appropriateness of referral are a challenge to obstetricians, since the delay in referral affects the maternal and perinatal outcome adversely, hence identification of "at risk" patients and obstetric emergencies and timely referral is of immense importance. In present study majority of cases belonged to age group 20-24 years (52.57%). Similar results were seen in study by Nanda LS *et al*. were majority of patients (62.5%) belonged to the age group of 20-30 years, followed by (30.7%) of patients who were in the 30- 40 year age group [1] and study by Morsheda B *et al*. had majority of patients (74%) in the age group of 20-35 years [5]. It is also in correlation with a study done in Africa where the mean age of referred cases was found to be 24.1 years [6]. In present study 80.3% cases were from rural area. Education wise majority 68.4% cases were studied till higher secondary class. Study done by Nanda LS *et al*. [1] where majority of patients (64.69%) are from rural background and Wahane AR *et al*. [7] where (95.65%) women belonged to rural areas. The reason for this may be due to poor medical facility in rural area.

In present study among total cases taken 1067 were grouped into categories according to referring centre such that 432 (40.49%) cases was referred from rural hospital/PHC/sub centre, 269 (25.21%) cases from District and Sub District hospital, 309 (28.96%) cases from medical college, 57 (5.34%) cases were from private hospital respectively. This finding is in contrary with the finding of study carried out by Sable U *et al*. [8] where the majority of patients (42.37%) were referred from District hospitals. This finding is also contrary to finding in study done by Nanda LS *et al*. [1] where majority of patients (57.59%) were referred from District hospitals.

Present study showed reasons for referrals among total cases of 906 were Precclampsia 218

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(20.43%), ecclampsia 60 (5.62%), previous LSCS 158 (14.81%), Preterm labour 106 (9.93%), PROM 70 (6.56%), Postdated 39 (3.66%), oligohydromnias 33 (3.09%), Breech 23 (2.16%), PPH 22 (2.06%), APH 19 (1.78%), CPD 19 (1.78%), Twins 19 (1.78%), GDM 17 (1.59%), IUGR 12 (1.12%), Placenta previa 12 (1.12%), Rh negative 9 (0.84%), IUD 11 (1.03%), Others 220 (20.62%) respectively. Study by Nanda LS *et al*. [1] also noted that most common indication for referral was preeclampsia (9.86%) followed by previous LSCS (8.87%), preterm labor pains with non-availability of NICU (8.08%), prolonged LPV (6.11%), severe oligohydramnios (4.33%). Pre-eclampsia/Eclampsia was the only similar major reason for referral in the study by Sabale U *et al*. [8] was (25.8%) and Charu *et al*. [9] was (26%) and one more study by Rathi N *et al*. [10] showed referral for hypertensive disorders of pregnancy (26%) and preterm labor (26%)

Conclusion

The present study was concluded that the peripheral health care system needs to be strengthened and practice of early referral needs to be implemented for better maternal and perinatal outcome. Health education to the community, high risk pregnancy identification and proper antenatal, intranatal and postnatal care will reduce the incidence of obstetrical referrals. This study also recommends the development of a standard referral protocol, proper training in this regard and universal adherence to this in practice.

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