

Referred Obstetric Patients and Their Outcome in Tertiary Care Hospital: a Crosssectional observational Study

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Abstract

OBJECTIVE: To understand the reasons for referral of patients received at SMGS Jammu.

METHODS: A retrospective study was conducted at SMGS Jammu during a study period from August 2021 to January 2022. The study sample consisted of patients referred to SMGS Hospital.

RESULTS: The proportion of Referral cases to our tertiary care hospital was 11.4%. Maximum number of patients were in the age group 20-30 yrs and were unbooked. Mostly patients were referred for Anemia, followed by Hypertensive disorders, followed by Hemorrhage. Among all the referred patients, number of patients delivered vaginally were 37.7%. 6.4% of Referred cases were admitted to Obstetric ICU. Maternal Deaths were 0.62% out of total referred cases.

CONCLUSION: The Primary and Secondary level hospital services should be strengthened and increased, so that there is less burden on tertiary care hospitals. Better patient care and management should be provided at hospitals nearby their homes. This all can be improved by strengthening the referral system.

Key words: Referral cases, Hypertensive disorders, Hemorrhage. Vaginal deliver & Obstetric ICU.

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I. Introduction

Maternal mortality is an important indicator of a nation's development and has been the focus of attention for public health since 1980s. The Safe Motherhood Initiative by the World Health Organization (WHO) in 1987 identified a few strategies to reduce these deaths which included family planning access, access to antenatal care and trained birth attendants along with the importance of emergency obstetric care. (1)

In 2000, the United Nations Millennium Development Goals (MDGs) listed reductions in maternal mortality ratio (MMR) as one of its eight goals. In 2005, the WHO report on "Make every mother every child count" highlighted the importance of continuum of care from pre-pregnancy to childhood and led to the formation of Partnership for Maternal, Newborn and Child Health (PMNCH).

Despite all these efforts, the reductions in maternal mortality have been far from satisfactory.

Pregnancy and child birth are physiological processes and a woman are the only person who can come across a number of health-related problems when pregnant and it can also lead to death. All these deaths occur in the developing countries where integrated health care system is not well organized. 22% of the population are constituted by women of child bearing age of 15-45 years in India. They are a vulnerable risk group which is due to pregnancy and child bearing. For providing access to essential obstetric care, the referral system is an essential component of any health systems which are important in pregnancy and child birth.(2)

The absence of the referral policy has negatively impacted accessibility in health care provision and is overstressing the resources of teaching hospitals and tertiary care institutions like SMGS Hospital, Jammu.

With proper Referral policy in place, state can excel in providing high quality care to patients at all levels, minimize duplication, reduce overcrowding in urban hospitals and ensure accessibility, affordability, equality and equity in health. It will also introduce accountability, transparency and responsiveness among health professionals and institutions

Currently there are no referral criteria to guide the health workers when referring patients. The absence of referral criteria leads to low acceptance rate, unnecessary and delayed referrals. There are no clear guidelines on who takes the responsibility for documentation of patients who die on their way to referral centers.

Some patients refer themselves from one level to another as they assume that they get better service at other levels. This leads to overcrowding and over burdening of the referral centers which end up handling patients who could otherwise be managed at lower levels of health care.

Over the centuries, anemia, eclampsia and hemorrhagic shock have killed millions of our pregnant women and still continue to do so. In spite of great advances in the medical field and improved quality of healthcare available in our country, the maternal mortality in India is very high. The key factors contributing the adverse maternal outcomes are lack of trained birth attendants, lack of education, low status of women in society, poor families, financial dependency of women, and delay in seeking medical treatment.

Due to lack of awareness and absence of regular antenatal care, the critically ill patients are referred late and sometimes in moribund conditions with multiple organ damage. Timeliness and appropriateness of referral is an important factor in the ultimate outcome of the patients. Linking the primary, secondary and tertiary levels of care are an essential element of primary health care. A referral system offers women some degree of health care at every level of health care system while linking the different levels through an established communication transport system .

Primary care services are incomplete if they lack appropriate and efficient referral systems to secondary and tertiary care hospitals. Primary Health Centers form the back bone of the public health system in rural India. For providing access to essential obstetric care, the referral system is an essential component of any health systems which are important in pregnancy and child birth. (3)

It is still recommended to electively refer pregnant woman with previous caesarean section, breech presentation, transverse lie, multiple gestation, hypertension and severe anaemia for delivery before any complication arise to a health care center where all the facilities to deal with the complications are available. With this background present study was undertaken to examine the current nature of referrals, to evaluate the maternal outcome in referred patients and analysis of appropriateness and timeliness of referrals.

OBJECTIVE

To understand the reasons for referral of patients received at SMGS Jammu.

II. Methodology

The present study was a retrospective study conducted in the Department of Obstetrics and Gynecology, SMGS Hospital, Jammu (J&K.). Study population was 1611 obstetric cases referred from various centers from August 2022 to January 2022. Referred patients was from several District outside Jammu as well as from within Jammu District. Demographic data of the patients and reasons for referral from referral slip was noted. Booking status of patients was noted whether they have taken previous antenatal checkups or not. Maternal outcome was noted in terms of obstetric ICU admission, mode of delivery and mortality.

Statistical analysis

All data was collected, compiled and compared statistically by frequency distribution and percentage proportion. Chi-square (χ^2) test was applied to know the statistically significant difference (p value) of the data. Epicalc version 2000 software was used for the same. The data was also compared with similar studies in India and abroad.

III. Results

After thorough analysis of data following observations were drawn: Total numbers of obstetric admissions were 14,446 out of which 1,611 cases were referred.

Distribution of cases as per mode of delivery (Table 1)

Table 1

Mode of delivery	No.of patients	Percentage
Vaginal	607	37.67%
Cessarian	612	37.98%
Conservative(post lscs,abortion,pretermpregnancy.pphn	392	24.33%

The proportion of referral cases to our tertiary care institute from periphery was 11.15% Maximum number of patients were in the age group from 20-30 years (1353 i.e., 83.9%) of total referred 1611 cases.

Cases were distributed according to parity: Primigravida patients were 43 %, multi-gravida patients were 52% and Grand-multi gravida were 5 % which were statistically significant. In the present study, maximum number of patients were unbooked comprising 72% of total cases. They had not received any antenatal checkup. Maximum number of patients (868) consisting 53.9% were from within Jammu District. Rest of the cases were from outside Jammu District i.e., Reasi, Udhampur, Ramban, Kathua, Samba, Poonch, Kishtwar and others.

In present study, cause of referral was classified into direct obstetric causes such as Hypertension, Hemorrhage, Obstructed labour, Sepsis, Previous LSCS pregnancy, Cephalopelvic disproportion, Fetal distress, Prematurity and Indirect obstetric causes such as Anemia, Hepatitis, Heart disease, Epilepsy and rest were un-indicated reasons for referral. Maximum number of patients referred for anaemia (16.4%) followed by hypertensive disorders (12.5%) and hemorrhage (12.5%) (Table 2)

In present study, out of total 1611 referred cases, 104 cases (6.4%) admitted to obstetric ICU. In our study, maternal deaths were in 10 cases (0.62%) out of total referred cases

Table 2

Direct causes

Hypertensive disorders	12.5%
Sepsis	3.97%
Failure to progression of labour	3.4%
Previous section	11.93%

Indirect Causes

Anemia	16.4%
Hepatitis	4.54%
Heart disease	1.7%

Unindicated causes

Ot not available	1.13%
Blood not available	7.95%
Obstetrician not availabkle	3.4%
Icu not available	1.13%
Neonatal icu not available	5.11%
Patient wants referral	2.27%

IV. Discussion

In our retrospective study, 1611 obstetric cases from August 2021 to January 2022 were referred to SMGS Hospital, Jammu. Maximum number of patients (83.9%) were in the age group of 20-30 years in our study. Morsheda Banu et al(8) showed that overall age distribution in majority (74%) of the respondents were between 20-35 years in their study which is correlated with our study.

In our study, majority of patients referred for anemia (16.4%) followed by hypertensive disorders (12.5%) and hemorrhage (12.5%). In study done by Patel HC et. al. (9) causes of referral were preeclampsia (16%) and MSL (5%). Rathi et al. (6) noted that majority of the cases were referred for hypertensive disorders of pregnancy (26%), preterm labor (26%), and medical disorders complicating pregnancy (21%). Maskey S et al (10) showed in a study that most common diagnosis at referral was medical disorders complicating pregnancy (38%) among which cardiac disease accounted for 20% followed by hypertensive disorder (17%).

In present study, out of total referred cases, 37.98% of cases underwent caesarean section and 37.67% delivered vaginally. Sorbye et al. found that referral status contributed substantially to the increased caesarean section rate, which was 55% in formally-referred which is not correlated with our study.

In present study, previous LSCS patients comprises 11.93% cases of total referral and in study by Khatoon A et al cause of reference for previous cesarean section is 15% which is correlated with our study. In present study, 104 (6.4%) cases admitted to obstetric ICU. Divya Goswami et al studied 154 cases referred to tertiary health centre in 2014. They found that 19 patients (8.02%) needed ICU admission.

V. Conclusion

Wide spectrum of complicated obstetric cases referred to our tertiary care hospital. Hypertensive disorders (preeclampsia, Eclampsia), anemia and hemorrhage (ante-partum or post-partum) have been the commonest cause of referral which need to be given special attention. The health care workers at primary centers should be trained properly. Health education and awareness by mass media and non-government organizations can improve the health and social status of women in our country.

Integration of primary, secondary and tertiary level of health services can have a significant impact on quality of care. The importance of this has been highlighted in the 'Health for All' policy frameworks by the WHO, (4) which states that:

"People in the region should have much better access to family-and community-oriented primary health care, supported by a flexible and responsive hospital system. Countries should have comprehensive primary health care services, ensuring continuity of care through efficient and cost-effective systems of referral to, and feedback from, secondary and tertiary hospital services. Patients often bypass first-level health care facilities for higher-level centres based on prior dissatisfaction with the care provided at these facilities and lack of available resources

There is lack of involvement in the arrangement or processing of referred patients.

Many patients are referred without initial work up being done. This results in increased length of patients' stay in hospitals and unnecessarily high bed occupancy rates. The specialist support to district hospitals is inadequate, leading to unnecessary referrals. There is poor coordination of referrals between different levels of health service delivery which causes delay in treatment of patients and results in overloading referral hospitals. A good referral system should ensure that the appropriate equipment and skills are available at primary and secondary level to treat complicated cases that cannot be handled at lower levels of health care.

Therefore, in order for the current referral system to function properly, there is a need for a formal referral policy, improved and strengthened communication strategies (especially feedback between all levels of care), improved transportation of patients by vehicles that are always in a good running condition, and the provision of suitable training opportunities for all health workers at all levels of care.

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