Study of referred cases in Obstetric and Gynecological practise at a tertiary care hospital in Central India

Deepika Verma[1,*], Ratnamala Thakur[2], Sunita Mishra[3], Abhyuday Verma[4]

[1]Associate Professor, [2]Professor & Head, [3]Assistant Professor, Dept. of Obstetrics & Gynecology, SAIMS, Indore, [4]Consulting Endocrinologist, Sewaclinic Onam Plaza, Indore

***Corresponding Author:**
Email: drdeepikasaims@gmail.com

Abstract

Background: Referral services for identification & referral of high risk pregnancies are an integral part of maternal and child health services. This study was aimed to incidence of referral cases of obstetrics/gynaecology analyze and to analyse the availability of adequate essential care for obstetric and gynaecological emergencies at health centers at periphery level.

Methods: 156 consecutively referred cases at Sri Aurobindo Medical College and PGI, Indore from various peripheral and private hospitals were included in the study and prospectively analysed for the cause of obstetric/gynaecological treatment referral, treatment obtained before arrival, delays during various points of treatment.

Results: Out of 156 cases studied, 118 cases (75.64%) were of obstetrics and 38 cases (24.35 %) were of gynaecology. Neonatal ICU care post delivery (n=28, 23.7%) was the most common cause of referral, followed by cases due to obstructed labour (n=27, 22.8 %). Out of 38 cases of gynaecology, maximum cases were of Ca Ovary (n=15, 39.4%), followed by those of uterire prolapsed (n= 14, 36%). Neonatal mortality in referred cases was observed in 8 cases, while obstetrics deaths were observed in 3 cases. Lack of facilities at peripheral health centre and lack of blood bank facilities were dominant reasons for referring the cases.

Conclusion: In view of the above findings, there is need for social and clinical interventions to fill the gaps in the current referring practices, to strengthen and improve quality of services, infrastructure and availability of trained manpower at peripheral health centres.

Key words: Referral cases, Obstetrics, Gynaecology, Obstructed labour

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Introduction

The origins of the notion of a formalised maternity referral system lie within the previously espoused strategy of risk screening in the antenatal period, in which frontline health workers would attempt to identify those women at high risk of obstetric complications and refer them on for specialized antenatal and delivery care at a higher (typically hospital) level.[(1)] It is only during last 10 years that the problem of maternal death has attracted greater attention. A call to initiate safe motherhood was given by WHO in 1987 with the aim not only to draw attention to high death rates prevailing in developing countries, but also to decrease related morbidity.

Referral services for identification & referral of high risk pregnancies are an integral part of maternal and child health services. The 3 tier health care delivery system was conceived in such a manner that the patients in need of a higher level of expertise & care could be referred accordingly from primary to secondary directly to tertiary level centre. The Prevention of Maternal Mortality (PMM) network study has proposed a three delays model[(2)] for referrals in obstetric and gynaecological emergencies. Thus along with providing care at tertiary centres, it has become essential to assess the existing health service facilities in order to evaluate deficiencies and strategise interventions based on clinical evidence to curtail the delay time to treatment.

In this study we have selected those cases which have been referred to Sri Aurobindo Medical College and PG Institute, a tertiary care centre, Indore from near by Primary health centres (PHC), private hospitals and local practitioners & outcome of such cases in our hospital. The study also critically evaluates the existing referral health care system & suggests measures to improve the same.

Material & Methods

This was prospective descriptive study conducted at Sri Aurobindo Medical College and PG Institute, a tertiary care centre, during January 2009 to January 2010. The study was aimed to study the incidence of referred obstetrics and gynaecology cases, to study the cause of complication in such cases and to study the cause of referral. Referred cases to our tertiary care centre from various peripheral and private hospitals were included in the study and prospectively analysed for the cause of emergency obstetric/gynaecological referral, treatment obtained before arrival and time delays during various points of treatment. Patients who

self-referred themselves were excluded from the study. Predesigned and pretested performa was filled in each case regarding the history given by relatives, information obtained from referral case notes, objective findings recorded during examination of patient and clinical outcome of patient during hospital stay and follow-up. Discriptive statistics like percentages are used for analysis. The comparison was made between these findings and conclusions were drawn after comparing and discussing with similar type of the work carried out by other authors.

Results

156 cases were studied during study period, out of which 118 cases (75.64%) were of obstetrics and 38 cases (24.35 %) were of gynaecology.**(Fig. 1)** Neonatal ICU care post delivery (n=28, 23.7%) was the most common cause of referral, followed by cases due to obstructed labour (n=27, 22.8).**(Table 1)** Out of 38 cases of gynaecology, maximum cases were of Ca Ovary (n=15, 39.4%), followed by those of uterire prolapsed (n= 14, 36%). **(Table 2)** Neonatal mortality in referred cases was observed in 8 cases, while obstetrics deaths were observed in 3 cases. **(Table 3)** Lack of facilities at peripheral health centre and lack of blood bank facilities were dominant reasons for referring the cases. **(Table 4)**

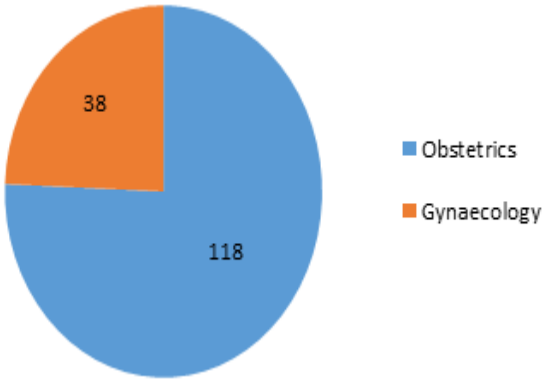

Fig. 1: Distribution of referral cases

Table 1: Types of referrals of obstetric cases

Condition	Cases (%)
Obstructed labour	27 (22.8%)
Antenatal case with jaundice	18 (15.2%)
Post- operative case of LSCS & ARF	15 (12.7%)
Eclampsia	12 (10.1%)
Ectopic pregnancy	10 (8.4%)
Uterire rupture ectopic	3 (2.5 %)
Retained placenta	3 (2.5 %)
Uterine inversion	2 (1.7%)
NICU care of baby due to foetal distress	28 (23.7%)
Total	118 (100%)

(LSCS- Lower segment caeserrian section, ARF- Acute renal failure, NICU- Neonatal Intensive care unit)

Table 2: Types of referrals of gynaecology cases

Condition	Cases
Ovarian malignancy	15 (39.47%)
Uterine prolapse	14 (36.8%)
Cervical malignancy	5 (13.1%)
Vault prolapsed	4 (10.5%)
Total	38 (100%)

Table 3: Clinical outcome (after Operative and medical management) of referred cases

Clinical outcome		Cases (%)
Mortality	Postpartum Haemorrhage with shock	1 (2.7 %)
	Chronic renal failure	1 (2.7 %)
	Severe anaemia with abruptio placenta	1 (2.7 %)
Morbidity due to prolonged hospital stay		10 (27 %)
Neonatal mortality		8 (22.22 %)
Neonatal morbidity due to prolonged hospital stay		15 (41.66 %)
Total		36 (100 %)

Table 4: Causes for referrals of cases (n=161 with overlap)

Causes	Cases
Lack of care at Peripheral Health Centre	58
Lack of blood bank facilities	44
Judgemental delay	30
Economic constrains	23
Lack of transport facility	6

Discussion

Sri Aurobindo Medical College and PG Institute is a rural tertiary referral center located in outside of Indore city where complicated obstetrics & gynaecology cases are referred from rural areas coverings all area of 250km. Cases are referred from various peripheral primary health centres and private hospitals from Indore and surrounding districts.

The World Health Organization estimates that at least 88–98% of maternal deaths can be averted with timely access to existing, emergency obstetric care using effective and efficient referral systems.[3] ‘‘Referral systems’’ have been considered to be an important component of health systems in developing countries since the emergence of primary healthcare. There is evidence that great gains can be made in maternal health by ensuring that women with pregnancy complications can quickly reach a facility where they can receive high-quality obstetric care.[1]

In the present study, obstetrics cases formed the bulk of referrals, as compared to gynaecology cases.

Similar was finding of Patel RV et al[4] where 82.4 % of referral cases were of obstetrics. Obstructed labour (22.8 %) and neonates (23.7 %) in distress requiring ICU care were common cases in obstetrics, which is again concurrent with observations of Patel RV et al(4). While malignancies (Ovarian/cervical) constituted 52.5 % of cases in present study, menorrhagia (50 %) was observed to be common gynaecological condition by Patel RV et al[4].

An attempt was made in this study to analyse impact of timely tertiary care services on referred patients in terms of morbidity and mortality. Significant number of patients (n=120, 77 %) were benifitted and had uneventful recovery. Three cases succumbed to complications of labour with deaths due to postpartum haemorrhage with shock, chronic renal failure and due to severe anaemia with abruptio placenta respectively. Considerable evidence suggests that hospitalbased management of obstetric emergencies can contribute substantially to the reduction of maternal mortality.[5] Eight neonates died due foetal distress during peripartum period. Morbidity of referred patients was measured by duration of hospital stay. 15 neonates and 10 obstetrics/gynaecology cases had prolonged hospital stay. Generally, cases are referred from peripheral health centres with measured risk. The risk approach is a managerial tool for improved maternal & child health. It's porpose is to provide better services to all, but special attention to those who need them most.

Various studies[4,6,7] are done to evaluate reasons for referrals to tertiary health care centres. There was overlap of causes with multiple causes found in some of the patients in present study. Lack of health care facilities at peripheral health centres, non availability of blood bank facilities, economic constraints, and judgemental delay during treatment were dominant causes of referrals. Non availability of speciality services was found in 49 % of cases by Sharma CP et al[6]. While, non availability of blood transfusion facilities was reported by 60% of patients[6] and over 70% of patients[7]. Economic constraints was observed to be important cause by Patel RV et al.[4] Similarly study from rural Uttar Pradesh, India by Rama Rao S et al[8] summarized that efficient referral can be impeded by a lack of basic equipment, up-to-date knowledge, and readiness to act on obstetric complications at frontline facilities. It was also observed that Government initiative to make available services of specialists in the periphery by providing six months has not delivered desired results. Doctor trained for such duration either lack confidence or do not want to take responsibility or deal with emergency/complication.[6]

Conclusion

This paper highlights that because of varied clinical conditions and diverse infrastructural deficiency and economic constraints of patients a uniform referral model may not be feasible in developing country. There is a need for social and clinical interventions to fill the gaps in the current referring practices, to strengthen and improve quality of services, infrastructure and availability of trained manpower at peripheral health centres.

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