

General practitioner and obstetric service in rural Nepal: A way forward

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Abstract

Aims: To review different types of obstetric services provided by the general practitioners with a back-up of para-medical staffs in a rural Nepal to analyze obstacles faced in providing qualitative care.

Methods: Retrospective analysis of all deliveries conducted at Okhaldunga Community Hospital in one year duration (December 2005 to December 2006).

Results: In the study period, 123 deliveries took place with 126 births due to the result of three sets of twin. Caesarean were done in 28(22.7%) and most of them being performed as emergency basis (92.8%). Of the 95 vaginal deliveries, instrumental delivery was 7.3%. One (0.8%) underwent vaginal birth after previous caesarean section (VBAC) and the episiotomy rate was 20.3%. The perinatal mortality rate was 95.23 per 1000 births.

Conclusion: Obstetric service in rural Nepal can be enhanced by incorporating general practitioners.

Key words: Obstetric care, general practitioners, rural setting.

Introduction

Okhaldunga Community Hospital (OCH) is situated in Sobru Village Development Committee (VDC) of Okhaldunga district, half an hour walking distance from the district headquarters and functions as referral centres and provides obstetric care including emergency operative facility like caesarean for surrounding four districts of Khotang, Udaypur, Ramechhap and part of Solukhumbu mode; where women are mainly brought in doko due to lack of roads and transportation.

In this region, it is only the general practitioners (GP) who is providing obstetric service along with other para medics. This retrospective audit is aimed at looking at improvising service delivery in rural eastern hilly region of Nepal.

Objectives

- To review the different types of obstetric care provided by the general practitioners with a back-up of paramedical staffs in a rural setting.
- To assess the situation and obstacles in providing obstetric care in rural areas of Nepal.

Methods

This is a retrospective analysis of the records of all deliveries conducted at Okhaldunga Community Hospital from December 2005 to December 2006. The records of all the deliveries conducted in the study period were reviewed. The births before 28 completed gestational weeks were excluded. Different parameters like rate of caesarean or instrumental delivery, episiotomy or vital statistics like neonatal and maternal complications were evaluated (Table1-3).

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Table 1. Reasons for hospital attendance

Bad obstetric history	1
Previous Caesarean Section	2
Post dated/Overdue	9
Less fetal movement	1
Leaking membrane	7
Ante partum hemorrhage	4
Could not deliver at home	11
Hand prolapse	4
Stuck after coming head of breech	1
Stuck 2 nd baby of the twin	1
Eclampsia (antepartum)	1

Table 2. Indications of caesarean section

Indications	No. (Percentage)
Placenta praevia	3(10.7%)
Malpresentation	9(32.1%)
Fetal distress with thick muconium	2(7.1%)
Cephalopelvic disproportion	2(7.1%)
Non-progress of labour	5(17.8%)
Obstructed labour	3(10.7%)
Other indications	4(14.2%)
Failed induction	1
Previous CS	1
Ruptured uterus	1
Eclampsia (antepartum)	1
Total	28(100%)

Table 3. Vital statistics

Total birth	126
Total live birth	118
Still birth	8
Eclampsia	1(12.5%)
Malpresentation with Hand prolapse	1(12.5%)
Gross congenital anomaly (hydrocephalus)	1(12.5%)
Obstructed labour tried to deliver at home	1(12.5%)
Uterine Rupture (obstructed labour)	1(12.5%)
Unknown cause	3(37.5%)
Early neonatal death	4
Low birth weight	2
Gross congenital anomaly (anencephaly & congenital ascites)	2
Perinatal death	12
Still birth rate (per 1000 birth)	63.4
Early neonatal death rate (per 1000 live births)	33.8
Perinatal mortality rate (per 1000 births)	95.2

Results

During the study period, only 2.43% of total women were referred to the hospitals from Primary Health Centre (PHC)/Health Post (HP)/Sub-Health Post (SHP).

There were 123 deliveries resulting in 126 births. Among all the deliveries, 22.7% (28) were delivered by caesarean section and 92.8 % (26) of the caesarean section were done on the emergency basis.

Rest were vaginal delivery [69.1% (85) were spontaneous vaginal delivery, 7.3% (9) {4 vaccum delivery and 5 forceps delivery} were instrumental delivery and 0.81% (1) was a case of vaginal birth after previous caesarean section]. The episiotomy rate was 20.3%.

Although intraoperative or anesthetic complications were none, yet 28.5 % (8) had post-operative morbidity (5 were treated with long term antibiotics for endometritis and urinary tract infection, puerperal pyrexia, wound infection). One required blood transfusion out of 126 total births, 6.3% (8) were still births and some of them followed caesarean section 17.8 % (5). All the early neonatal death 3.1 % (4) occurred within in the first 24 hours; one was a post cesarean section baby. The perinatal mortality rate was 95.2 per 1000 births.

Perinatal morbidities were observed in 7.9% (10) babies and 4 received incubator care for low birth weight, 3 had birth asphyxia (one needed advanced paediatric resuscitation with bagging, other two for poor sucking needed nasogastric feeding for first 3 days) and one each had meconium aspiration syndrome, neonatal sepsis and Erb's palsy.

Discussions

It is sad to learn that the percentage of hospital delivery is very small for such a wide catchment area.

While, positive observation is that of 63.41 % (78) women who came in labour having decided for hospital delivery before any complication arose.

WHO estimate of 15% pregnancy complications is exceeds here.¹This again reflects the trend of coming to the hospital only after complication arises at home, home being still the preferred place of delivery apart from poor antenatal supervision acquired, 18.18% of women who never made any ANC visits.²⁻⁴

In 28 mothers, who underwent caesarean section, malpresentation, previous caesarean section and polyhydramnios were missed during the antenatal

clinics and this is the main concern of acquisition of proper training by skilled birth attendants.³ This again emphasizes the importance of improvement of quality of ANC's done by skilled birth attendants.

The caesarean rate of 22.76% seems quite high compared to the overall caesarean section rate (i.e. 7.72%) of the large urban hospital in Nepal⁵. Besides higher caesarean section rate, the emergency procedure is much higher due to the tendency of coming to hospital only after the complications of labor giving rise to higher perinatal death rate and maternal morbidity.

Our rate of emergency caesarean section is comparable with the record of CS rate of the same hospital (92.85% vs 85%). Malpresentation was the top indication for caesarean section in our study, whereas it was fetal distress in the previous study.⁵ Many of these emergency caesarean sections could have been converted into elective ones providing better maternal and perinatal care.

The perinatal mortality rate of 95.23 per 1000 birth is higher than the national rate (75 per 1000 birth) but is consistent with the perinatal mortality rate of another rural hospital situated in western part of Nepal, where the rate was 91.2 per 1000 births.⁶ The perinatal mortality rate in OCH was quite high compared with the rate in the urban areas of Nepal, where it ranged from 20 to 40 per 1000 births.⁷⁻¹⁰ Prematurity is undoubtedly the most important cause of the early neonatal death and is consistent with other perinatal death audits done in other parts of the country.^{7, 10}

Among the cases of still birth, in 37.5% of cases possible cause could not be identified. Unidentifiable causes for still birth were noted by other studies done in Nepal and India to be 40% and 32.6% respectively.¹⁰ Obstructed labour and malpresentation could have been prevented, provided they were identified earlier.

It is to be noted that general practitioners in Okhaldhunga have indulged themselves in services to rural population of Nepal in all the ways possible, starting from obstetric care beginning with antenatal checkup, ultrasound scanning, and the routine and emergency obstetric procedures along with anaesthesia provision and neonatal resuscitation, which is similar to other countries¹¹⁻¹⁶

But the dread of litigation which is by far lesser in Nepal has enabled GP to carry procedural obstetrics competently which is noteworthy.^{13, 16-19} This has encouraged 61% of total GP to work outside using obstetric skills respectively. However the recommendation made below is apt to bring better change.

Recommendations

To have GP provide good and effective obstetric care in the rural Nepal, the following recommendations are made:

1. A good back up team of para-medical staffs including trained mid-wives, anaesthetic assistant and operation theatre assistant.
2. A good set-up with facilities for emergency operative management, anesthesia and blood transfusion.
3. Refresher training for Skilled Birth Attendants working in the surrounding areas, establishing better communications, as well as monitoring their works, urging for timely referral of high risk cases.

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