



Quality of postpartum care

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OBJECTIVE(S) : To study the reasons for postpartum admissions to our tertiary care rural hospital.

METHOD(S) : Records of 200 women hospitalized for various postpartum disorders were analyzed.

RESULTS: The common disorders for which postpartum women sought tertiary health care were puerperal sepsis (51%), secondary postpartum hemorrhage (28%), and postpartum eclampsia (8.5%). Most common causes of sepsis were infected episiotomies at health care facilities where deliveries took place or infected vaginal / perineal tears in home deliveries. Secondary postpartum hemorrhage in some cases was from perineal and/or vaginal tears and in others from retained placental pieces. Some women were admitted for postpartum eclampsia after having delivered at hospitals with prenatal care, others at home with no prenatal care. Blood pressure of women who had delivered at primary health center had never been recorded.

CONCLUSION(S): Most of the problems were due to lacunas in the health care provided in postpartum period. Some women are deprived of care while others suffer due to poor care or interventions. Appropriate care at primary, secondary, and tertiary level is imperative.

Key words : postpartum hemorrhage, puerperal sepsis, episiotomy, perineal tear

Introduction

Postpartum complications contribute to a lot of maternal morbidity and mortality, more so in rural women. These complications not only lead to various short term and long term dangerous sequelae, but may also cause mortality. How often and for which of these complications postpartum women seek health care is not very well documented but needs to be studied in depth as many of the complications can either be prevented or appropriately treated if detected early.

The present study was done from 1st August, 1999 to 31st July, 2002 by analyzing the records of rural postpartum women who had sought admission to our tertiary care

teaching hospital in rural area. Our purpose was to know the disorders and also the causes of these disorders, so as to find the lacunas at various levels for trying improvisation of the services and formulating advocacy at different levels.

Methods

Women admitted for any postpartum problem after having delivered at home or at other hospitals or readmitted after discharge following delivery at the study hospital were included in the study. Of the first 10 women admitted to the obstetric and gynecological wards of the institute on any given day, postpartum cases, excluding those who had come for sterilization, irrespective of age, parity, socioeconomic status, place, and type of delivery, were included in the study. If less than 10 women were admitted on a given day then all the postpartum women admitted were included, again excluding those admitted for sterilization. A total of 200 subjects were studied and analyzed. Because of the selection criteria used the study period spread over nearly 3 years as often there were no such admissions fulfilling the inclusion criteria. During the study period there were 9080 obstetric admissions and 7816 deliveries. Seventy percent of the population seeking services at our hospital is rural belonging

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to lower and middle socioeconomic class and having primary or secondary school education.

Results

Out of all the women admitted for various postpartum morbidities, 4% were teenagers, 82% between 20 and 29 years of age and 14% between 30 and 39 years (Table 1). This age distribution is similar to that in our over all obstetric cases. Thirty-six percent women were from lower socioeconomic class, 18% lower middle, 21% middle and 12.5% each from upper middle and upper class. Forty-eight percent women were field workers and 36% housewives. Six percent were illiterate, 48% had only primary education and 26% were graduates. Majority of the women were uniparous (44%), 31% belonged to parity two, 24% to parity 3 or 4 and two were grandmultiparas. This distribution was similar to that in our overall obstetric cases delivered at our hospital.

The common disorders for which, these women sought services were puerperal sepsis (n=102; 51%), secondary hemorrhage (n=56;28%) and postpartum eclampsia (n=17;8.5%). Of the 200 women 45 (22.5%) had delivered at home, 46 (23%) at other hospitals or private maternity homes and 109 (54.5%) at the study hospital (Table 2). The minimum interval between discharge and readmission was 7 days and maximum 20 days with a mean of 13 days.

Out of the 45 women admitted after having delivered at home, 17 (37.77%) had infection –13 had pelvic sepsis and 4 had infected perineal tears including a one with third degree tear. Twelve of the 45 (26.66%) women had presented with secondary hemorrhage – eight from the uterine cavity and four from perineovaginal tears, in two of whom the tear was extending deep in the posterior fornix. Ten out of these 45 women had eclampsia after delivery out of whom seven were brought directly from home while three were first taken to other hospitals from where they were referred to us (Table 2).

Table 1. Age, parity and postpartum morbidity.

Age (years)	Parity	Morbidity					Total
		Sepsis ^a	Postpartum hemorrhage	Postpartum eclampsia	Breast abscess	Others ^b	
< 19	1	02	02	03	-	01	08
20 – 29	1	60	14	-	-	06	80
	2	20	16	08	03	08	55
	3-4	11	10	04	02	02	29
30 –39	2	02	02	-	-	03	07
	3-4	07	10	02	-	-	19
	≥5	-	02	-	-	-	02
Total		102	56	17	5	20	200

^a Perineal / vaginal or cesarean section wound or general genital sepsis.

^b Others include jaundice, postpartum psychosis, sickle cell crisis, malaria, urinary tract infection, postcesarean section anuria, hypertension, and thrombophlebitis.

Table 2. Postpartum morbidity in relation to place and type of delivery.

Place of delivery	Type of delivery	Morbidity				Total
		Sepsis	Postpartum hemorrhage	Postpartum eclampsia	Others	
Study hospital	ND	32	16	-	5	53
	Inst VD	12	8	-	2	22
	CS	29	8	-	7	44
Other hospitals	ND	7	4	4	5	20
	Inst VD	3	5	-	-	18
	CS	2	3	3	-	18
Home	ND	17	12	10	6	45
Total		102	56	17	25	200

ND - Normal delivery

InstVD - Instrumental vaginal delivery

CS - Cesarean section.

Others include jaundice, postpartum psychosis, sickle cell crisis, malaria, urinary tract infection, postcesarean section anuria, hypertension, and thrombophlebitis.

Out of the 36 (18%) women, who were admitted after having delivered at private maternity homes or other public hospitals, 12 had presented with sepsis, eight infected episiotomies, two cesarean wound infections and two pelvic sepsis. Twelve (33.33%) women were admitted with secondary hemorrhage, seven had uterine bleeding and five had bleeding from uterus as well as from vaginal tears. Seven (19.44%) women were admitted with postpartum eclampsia, four of whom had delivered at primary health centres (PHC) three within 1 hour of admission and one within 4 hours. Two of these four women were delivered by PHC doctors and two by auxiliary nurse midwives. None of these women had their blood pressure ever recorded at PHC and they all were discharged 24 hours after delivery. They had developed convulsions within 24-48 hours of delivery and were taken to private doctors, from where they were referred to us 12-16 hours after admission. Three other women with postpartum eclampsia had delivered at private maternity homes and were discharged after 1-2 days and had convulsions 1-3 days after discharge (Table 2).

The biggest proportion, 119 (56.5%) of 200 women admitted postpartum had been admitted after having been discharged from the study hospital. Apparently some of these women were either discharged in healthy condition and thereafter the raw area in the genital tract got infected in the unhygienic surroundings at home or their problems were overlooked by nurses as well as doctors before discharge as majority of these women were admitted because of sepsis. Out of 73 such women, 29 had cesarean section (CS) wound infection and 44 had infected episiotomies. The figures do not represent infection rate at our institution as the percentage is not calculated from the number of vaginal deliveries or CSs but from those women who were admitted postpartum during the study period with some or the other problem. Twenty-eight percent (56/200) women were admitted because they had secondary hemorrhage, mainly due to unsutured vaginal and/or cervical tears. These women either did not have heavy bleeding during delivery or immediately thereafter and so had not been adequately attended to. It is also possible that they did have little more than average bleeding in the postnatal wards but did not inform the nurses or it was not noticed or taken seriously and hence not recorded (Table 2).

Over all episiotomy and vaginoperineal wound sepsis were the most common causes of postpartum admissions irrespective of the place of delivery. Home delivered women had presented with unsutured infected perineal/vaginal tears and hospital delivered ones with infected perineal, vaginal and cervical tears, and infected episiotomies.

Discussion

Postpartum morbidities continue to be major health issues which need to be looked into critically not only for curative but preventive and promotive health. It is being believed that in developing countries, while 65% of all women have some form of antenatal care and 53% intranatal care, only 30% receive postpartum care ¹. A big proportion of Indian rural women still deliver at home with or without any prenatal and intranatal care. They are malnourished, anemic and remain prone to postpartum complications.

In a rural community based study Bhatia et al ² had observed 11.5% postpartum morbidity. Srinivas et al ³ in a study of various antepartum, intrapartum and postpartum morbidities in 4000 women reported 24.6% postpartum morbidity including 2.2% life threatening complications. Service oriented research data from the villages around the health care facility from where the present study is reported reveals that from 1987 onwards the percentage of major postpartum morbidities have ranged from 0.5% to 3% of total home deliveries ⁴.

In the present study the most common cause for postpartum admission was sepsis, including infected episiotomy, abdominal wound infection after cesarean delivery, and pelvic sepsis. Of the 102 women admitted with postpartum infection 71 (68.6%) had infected episiotomy. According to Enkin et al ⁵ although episiotomy has become one of the most commonly performed surgical procedures, it was introduced without strong scientific evidence of effectiveness. Some condemn episiotomy because of morbidities (hematoma formation, infection, malunion etc) and because women keep away from health facilities due to fear of episiotomy. But many continue to employ it liberally without justification. The possible reasons for infection are delivery in unhygienic conditions and postpartum unhygienic environment with poor resources. Added to this is the failure of doctors or nurses to assess women properly before discharge, to detect early evidence of infection, and to give appropriate advice.

The interval between delivery and development of symptoms was between 2 and 4 days in home deliveries and between 3 and 5 days in those who had delivered at other or study hospital. The interval between development of symptoms and admission ranged between 7 and 20 days. Fourteen women came 20 days after delivery. They had tried locally available services for treatment but when the situation did not come under control, bleeding did not stop, and fever and foul smelling discharge persisted they reported to institutions. In the women from our study hospital the discharge readmission interval was 6-7 days in cases with sepsis and 13-20 days in cases with other problems.

Secondary postpartum hemorrhage in women who had been discharged from our teaching hospital was from infected cervico-vaginal tears which were not diagnosed during delivery either because they did not bleed or had little more than average bleeding which was not taken seriously. If there is bleeding, women come to the hospital earlier. Among the women who were admitted for postpartum hemorrhage, the time lag between symptom and admission was less than 24 hours in 89% cases. But four women reported after 5 to 7 days because two of them lived far off and their husbands were out of town and two had tried treatment from the PHC. In one case the relatives were getting medicines from PHC without any examination of the woman.

One woman who had deep vein thrombosis after cesarean delivery at a maternity home, was discharged by the doctor on the 9th day with some analgesics, in spite of her complaint of persistent pain in the leg. Two days later she was admitted in our hospital with both legs swollen and extremely tender due to thrombophlebitis. Ignorance and inadequate knowledge regarding postpartum complications continue to be a challenging factor.

59.5% (119/200) women had delivered at our hospital. Infection rate in postpartum women who deliver with us is around 2.5%. Everyday many postpartum women are discharged and they do not come back with any problems. So, 119 over 3 years is a small but significant number because they were admitted with avoidable morbidities. We had decided to analyze these small numbers looking at sporadic postpartum admissions so that there is awareness of lacunas at all levels of health care facilities. Preventable disorders must be prevented and if the disorder occurs it should be diagnosed and treated appropriately before discharge.

Looking at the results of this study, a hospital based long term study of postpartum morbidities has already been initiated. This pilot study makes us aware of lacunas in health care at all levels, at home due to lack of care and facilities, in small set ups due to inadequate facilities and services, even the basic ones, and in the big and busy hospitals due to problems missed by inexperienced resident doctors. Further it is revealed that no special attention and advice were given to women discharged after cesarean section even at the tertiary health care hospital from where the data has been analyzed.

Conclusion

At home the family members may not realize the gravity of symptoms and problems. The problems at different health facilities also need to be looked into carefully and critically. Appropriate care, advice and counseling of women and their family members regarding postpartum care are imperative for reducing postpartum morbidities.

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