

PRESENTATION AND MATERNO-FOETAL OUTCOME IN DEFAULTERS OF OBSTETRIC PROCEDURES IN STATE SPECIALIST HOSPITAL, ASUBIARO, OSOGBO, OSUN STATE, NIGERIA.

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ABSTRACT

Background: Obstetric procedures are carried out to reduce or completely eliminate maternal and perinatal morbidities and mortalities.

Objectives: is to determine the mode of presentation and materno-foetal outcome in defaulters of obstetric procedures, the reasons for defaulting the obstetric procedures and to institute measures to reduce or completely eliminate them.

Materials and Methods: It is a prospective observational study. All the patients that defaulted obstetric procedures, mainly induction of labour and elective caesarean sections, but later represented in the hospital for management between February 2013 and January 2015 were recruited in to the study. These patients and their babies were followed up till the first 7days postpartum.

Results: During this study period, 66 patients represented after defaulting and managed accordingly. Majority of the patients aged 25-34 years (45 patients; 68.18%) presented after 40 weeks gestational age and were mainly of social class III (44patients; 66.66%). Most of the defaulters, 43 patients (65.15%) had their last deliveries per vaginam and labour were spontaneously achieved. The commonest reasons for defaulting the earlier scheduled obstetric procedures were fear of the complications of the procedures and advice from friends and relations (45patients; 68:18%). The 2 main obstetric procedures evaluated were inductions of labour, 40 patients (60.61%) and elective caesarean sections, 26 patients (39.39%). The materno-foetal outcome considered were; birth asphyxia 26(39.39%), intrauterine foetal death, 12(18.18%), primary postpartum heamorrhage 12(18.18%), ruptured uterus 2(3.03%), neonatal jaundice 1(1.52%), neonatal sepsis 1(1.52%), and early neonatal deaths 2(3.03%).

Conclusion: Social class of the patients, fear of complications from the procedures, advice from friends and relations and the mode of last delivery determines the acceptance of the planned obstetric procedures by the patients. Thus proper education during the antenatal clinic visits will make managing these patients easier.

Keywords: Social Class, Traditional Birth Attendants (TBA), Induction of labour (IOL), Elective Caesarean Section (ELCS), Emergency Caesarean Section (EMCS), Apgar Score (AS), Prolonged Pregnancy and Spontaneous Active Phase Labour (SAPL), Augmentation of Labour (AOL).

INTRODUCTION

Obstetric procedures are carried out to improve pregnancy outcome and to prevent maternal and

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perinatal morbidities and mortalities. It may be carried out as emergency or elective interventions. The common obstetric procedures are IOL, AOL, EMCS, ELCS, vacuum extraction, forceps delivery, external cephalic version, breech delivery and destructive operations. However this study considered only induction of IOL and ELCS which are the commonest interventions and the most defaulted obstetric procedures in this centre.

It was observed that a significant number of pregnant women in this centre defaults one or more pre-counseled obstetric procedures, but often present later in critical condition after prior management in traditional birth attendant facilities or private maternity centers. Sadly, some defaulted and awaiting 'natural' labour at home. I therefore deem it fit to take critical look at the possible reasons for defaulting scheduled obstetric procedures in this centre and to proffer solutions to reduce or completely eliminate the problem.

The outcome of this study will also help modify or restructure the components of the antenatal health education, especially on the need for the pregnant women to see the decisions of the obstetricians as measures to make the pregnancy, delivery and the puerperium complication free.

MATERIALS AND METHODS

This prospective observational study was carried out in State Specialist Hospital, Asubiaro, Osogbo, Osun State, Nigeria, between February 2013 and January 2015.

The patients that were scheduled for obstetric procedures, mainly IOL and ELCS but defaulted, and later re-presented in the hospital for obstetric interventions as a result of intrapartum complications developed in private healthcare facilities or traditional birth attendant centres, were recruited into the study. Those who defaulted obstetric procedures but did not re-present for

management in our centre, were not captured in the study.

The State Specialist Hospital, Asubiaro, Osogbo, is a multicentre facility located in Osogbo, the capital of Osun State. It serves as one of the major referral centres, attracting patients from all the local government areas in the state. Patients are referred from private, mission and government owned hospitals. Some patients also found their ways to the hospital after poor labour management by traditional birth attendants. The hospital delivery rate in the last few years has been about 1980 per year, with an average monthly delivery of 165.

Patients were assigned to social classes taken into consideration the patient's and their spouse level of education and income using Olusanya O, Okpere E and Ezimokhai M. scoring system for social class. This is because the wife's social status directly or indirectly depend on the summation of both her educational level, financial status and that of her husband. (figure 1).

The patients were adequately counseled and an informed verbal consent obtained from them before recruitment into the study.

The socio-demographic data; parity, number of antenatal clinic visits, gestational age at delivery, mode of delivery, events in labour, reasons for defaulting the scheduled obstetric procedure, previous management and where it was carried out, maternal and foetal well being in the first 7 days post partum and the mode of the delivery of her last pregnancy if not a nulliparous woman were collected with a structured obstetric data sheet. The data were subjected to statistical analysis with a personal computer using SPSS Version 20.0.

RESULTS

Out of the 66 pregnant women recruited in to this study, 40(60.61%) were scheduled for IOL for prolonged pregnancy and pregnancy induced

hypertension or pre-eclampsia at term. Twenty-six (39.39%) were scheduled for ELCS at term for cephalopelvic disproportion/macrosomic baby, abnormal lie, placenta praevia, previous myomectomy and breech in nulliparity at term. Hence the commonest obstetric intervention in our centre is IOL.

Of the 66 patients studied, 20(30.30%) were earlier managed in private maternities and hospitals, 11(16.67%) managed by traditional birth attendants, 2(3.03%) were managed by both the traditional birth attendants and private maternities, while 33(50%) just decided to stay at home awaiting the "natural labour process" to commence.

Interestingly, 29 had vaginal deliveries and 37 had emergency caesarean sections. One of the vaginal deliveries was a destructive operation for entrapment of the after coming head of the breech presenting foetus.

The mean maternal age was 29.20+ 4.01 years (range: 16 – 38 years), the mean parity was 1.50 +1.23 (range: 0 - 5), the mean gestational age at delivery was 41.05 + 1.28 weeks (range: 38 – 45 weeks) and the average length of default 8.65+ 3.74 days (range: 2 – 28 days).

Majority of the patients, 52 (78.79%) represented for management after 40 weeks gestational age (Table 1). The patients were mainly of social class III, 44(66.66%). Conversely, these defaulters cut across all the parities; 22(33.33%) were nulliparous, 24(36.36%) were para 1 and 2, while 19 (28.79%) were para 3 and 4.

None of the patients booked within the first trimester, but 30 (45.46%), booked the pregnancy in the second trimester and 36(54.54%), booked in the third trimester (Table 1). Women with 3 or less number of antenatal clinic visits had the highest defaulting rate in this study 32 (48.48%), while those with 7 or more antenatal clinic visits had lower defaulting rate of 9(13.64%).

A review of the patients last obstetric history, showed that 44(66.67%) had vaginal deliveries before the index pregnancies, and 22(33.33%) were nulliparous.

Most of the women defaulted obstetric procedures because of the fear of the possible complications from the procedures and advice given to them by their friends and relations 45(68.18%), this was closely followed by financial and advice by friends and relations 10(15.15%). (Table 2)

A critical look at the materno-foetal conditions during the intrapartum and within the first 7 days after delivery, showed that 26(39.39%) of the babies had birth asphyxia, 12(18.18%) had intrauterine foetal deaths, 1(1.52%) had neonatal jaundice, 1(1.52%) had neonatal sepsis and 2(3.03%) had early neonatal deaths. Twelve (18.18%) of the parturients had primary postpartum haemorrhage, 2(3.03%) had ruptured uterus, 12(18.18%) were transfused, but fortunately no maternal mortality was recorded among the patients (Table 4). Those 2 patients with ruptured uterus were scheduled for ELCS for previous myomectomy and cephalopelvic disproportion. They were managed by traditional birth attendants and maternity centres. The patients had their uterus repaired and they had 3 pints of blood transfusion each.

A comparison of the maternal morbidities and perinatal morbidities and mortalities with the length of default in days showed that morbidities and mortalities were more common with those who defaulted for more than 5 days. In fact, 11(91.67%) of the 12 intrauterine foetal deaths occurred in those who defaulted for more than 9 days. (Table 5)

With an annual average of 1980 deliveries in the last few years, the defaulting rate during this study period was 1.67%.

DISCUSSION

Obstetric procedures are carried out to improve

pregnancy outcome or to prevent maternal and perinatal morbidities and mortalities. It is a very difficult task to counsel pregnant women to consent to any obstetric intervention other than spontaneous vaginal delivery in this environment. Apart from the fear of anaesthesia and other possible complications associated with surgical operations, most pregnant women see spontaneous vaginal deliveries as the pride of an ideal woman and that such a woman has performed the natural assignments given to all women by God.^{2,3} Although, the defaulted obstetric interventions considered in this study were IOL and ELCS, but there is a strong aversion to any mode of delivery, other than vaginal delivery in this environment and the entire sub-Sahara, Africa.^{2,7}

Induction of labour is the commonest obstetric procedure and mostly for prolonged pregnancy.^{8,9} Patients however must be counseled for the possibility of failed IOL and hence caesarean section when induction of labour fails.^{8,10} Possibly, the counseling that IOL, does not guarantee vaginal delivery that contributed to high defaulting rate of IOL in this study.

Thus, IOL is not the problem, but the fear of possible caesarean section when it fails. Aziken et al reported in Benin-City, that only 6.1% of women were willing to accept caesarean section as a method of delivery, 81% would accept caesarean section only to save their lives and that of their babies, while 12.1% would not accept caesarean section under any circumstances.³ This is in contrast to the situations in some countries especially the western world, where patients belief, that caesarean section is safer, eliminates pains of labour and atimes maintain sexual satisfaction after delivery.¹¹

The defaulters cut across all the parities, but the mode of last deliveries, played a significant role in the acceptance of obstetric interventions. Forty-four (66.67%) of the patients had vaginal deliveries in their last pregnancies. Thus, they see no reason why

they should not be able to achieve spontaneous vaginal deliveries. Black reported that previous positive experience of vaginal deliveries influences the inclination of patients towards vaginal delivery in United Kindgom.¹²

Forty-Four (66.67%) of the studied population were of social class III.¹ This is the middle class of the society. This group of people had basic education that will make counseling during the antenatal period very easy if well packaged and timely.

Similarly majority of the defaulters, 32 patients (48.48%) had less than 4 antenatal clinic visits and many of them, 30(45.45%) booked the index pregnancy during the second trimester of pregnancy. Thus even with their social class, they booked their pregnancies late and had poor attitudes towards antenatal clinic visits. These will make antenatal health education programmes ineffective. Although Iyaniwura and Yussuf reported in Shagamu, Southwestern Nigeria that higher educational status and level of income improves antenatal clinic attendance.¹³

The more important factors for defaulting obstetric procedures in this study are; fear of complications from the procedures and advice from friends and relations, especially when the 2 factors are combined together (fear + Advice) 45 patients (68.18%). This may even prompt them to present in traditional birth attendants care centres with the aim of achieving vaginal or complications free deliveries. Umeora et al reported in Abakaliki that compliance with antenatal prescriptions from Orthodox health facilities largely depend on the endorsements by the traditional birth attendants.² This supported our findings that despite the counseling about the risk involved, 11(16.67%) still found their ways to the TBAs for labour management.

Birth Asphyxia was the commonest foetal morbidity, possibly from poorly managed labour or

prolonged pregnancy. The average gestational age at representation for management was 41.05 + 1.28 weeks. Many of the patients, 20(30.31%) waited at home till 42 weeks, awaiting spontaneous labour. A patient re-presented at 45 weeks with intrauterine foetal death, and had macerated still birth after 4 days of labour management by traditional birth attendants and a maternity home.

A comparison of the maternal morbidities and foetal morbidities and mortalities with the length of default, showed that those who defaulted for more than 5 days developed more maternal and perinatal morbidities and perinatal mortalities. (Table 5).

CONCLUSION

Previous positive experience of vaginal delivery, social class of the patients, strong desire to achieve vaginal delivery, fear of the possible complications resulting from the procedures and advice from friends and relations are the main factors for defaulting obstetric procedures or interventions.

There is the need for comprehensive health education on the routes of delivery and their indications during the antenatal clinic attendance to gain confidence of the patients, that all the efforts of the Doctors and the Midwives, are to make pregnancy, labour and delivery a satisfying experience for the mother, baby and the health care providers.

RESPONSES TO THE QUESTIONS

Antenatal counseling and health education by Doctors and Nurses should not be restricted to the antenatal clinics alone, but also to small groups and individual counseling and health education. Availability of audio-visual instrument such as posters, hand bills and video clips if affordable will be of great help.

The counseling and health education must be regular, at every antenatal clinic visits, and should not be

unidirectional. The pregnant women should be allowed to make contributions and ask questions to assess their level of attentiveness and understanding of the topics discussed without molestation, even when the educators or counselors (Doctors or Nurses) considered the questions irrelevant.

Community obstetric practice play a major role in reducing defaulting rates among the parturients, because the midwives and some of the attending doctors in primary health care facilities, speak the local languages, share some cultural and religious believes. They can then serve as links between the patients and the secondary or tertiary health care facilities to refer such patients early.

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Fig 1: Scoring System for Social Class

A. Husband's Occupation.

Scores

1. Professional, top civil servants, politicians and business man.
2. Middle-level bureaucrats, technicians, skilled artisans and well to do traders.
3. Unskilled workers and those in general whose income would be at or below the minimum wage.

B. Level of Educational Attainment (Wife)

Scores.

- O. Education up to university level.
 1. Secondary or tertiary level below the university level e.g college of education, school of nursing etc.
 2. No schooling or up to primary level only.

SOCIAL CLASS = Score A + Score B

Courtesy: Olusanya O, Okpere E, Ezimokhai M. (WA. J. Med. 1995; 4:4)

TABLE 1: SOCIO BIOLOGICAL VARIABLES OF THE PATIENTS

VARIABLE	No. of Patients	%
Patients Age (Years):		
15-19	2	3.03
20-24	10	15.15
25- 29	22	33.33
30-34	23	34.85
>35	9	13.64
Social Class:		
I.	6	9.10
II.	8	12.12
III.	44	66.66
IV.	8	12.12
V.	-	-
Parity:		
0	22	33.33
1-2	24	36.36
3-4	19	28.79
>5	1	1.52
Gestational Age at Delivery (weeks):		
37 – 39	14	21.21
40 – 42	32	48.48
>42	20	30.31
Gestational Age at Booking (weeks):		
<13	-	-
14 – 28	30	45.46
29-36	27	40.90
>36	9	13.64
No of Antenatal Clinic Visits:		
1 – 3	32	48.48
4-6	25	37.88
>7	9	13.64

TABLE 2: REASONS FOR THE DEFAULT OF OBSTETRIC PROCEDURES

Reasons	No of Patients	%
Financial	2	3.03
Advice from Relations and Friends	2	3.03
Fear of complications	2	3.03
Financial + Advice from relations & friends	10	15.15
Fear + Advice from Relations and Friends	45	68.18
Fear + Financial	5	7.58
TOTAL	66	100.00

TABLE 3: INDICATIONS FOR THE SCHEDULED OBSTETRIC PROCEDURES

Indications	Scheduled Procedures	Number of Patients	%
CPD / Macrosomic Baby	ELCS	9	13.64
Abnormal lie	ELCS	3	4.55
APH 20 Placenta Praevia	ELCS	2	3.03
Prolonged Pregnancy	IOL	30	45.45
PIH at Term	IOL	10	15.15
Previous Myomectomy	ELCS	1	1.51
Abnormal Presentations	ELCS	6	9.09
Severe IUGR/Oligohydramnios	ELCS	5	7.58

CPD: Cephalopelvic Disproportion
 APH: Antepartum Haemorrhage
 PIH: Pregnancy Induced Hypertension

TABLE 4: MATERNO-FOETAL OUTCOME AMONG DEFAULTERS OF OBSTETRIC PROCEDURES

Outcomes measures	No. of Patients	%
Birth Asphyxia	26	39.39
Intrauterine Foetal Deaths	12	18.18
Primary PPH	12	18.18
Ruptured Uterus	2	3.03
Neonatal Jaundice	1	1.52
Neonatal Sepsis	1	1.52
Early Neonatal Deaths	2	3.03
Blood Transfusion	12	18.18

PPH: Postpartum Hemorrhage

TABLE 5: COMPARISON OF LENGTH OF DEFAULT IN DAYS AND MATERNO-FOETAL OUTCOME.

Outcome Measures	1-4 days	5-8 days	9-12 days	>13 days
Birth Asphyxia	3(4.55%)	10(15.15%)	13(19.69%)	
IUFD	1(1.52%)		6(9.09%)	5(7.58%)
Early Neonatal Deaths			1(1.52%)	1(1.52%)
Neonatal Sepsis		1(1.52%)		
Neonatal Jaundice			1(1.52%)	
Ruptured Uterus	3(4.55%)		2(3.03%)	
Primary PPH	3(4.55%)	3(4.55%)	5(7.58%)	1(1.52%)
Blood Transfusion		2(3.03%)	5(7.58%)	2(3.03%)

IUFD: Intrauterine Foetal Death

PPH: Primary Postpartum Hemorrhage

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