Title: Prevalence of pregnant women coming head on perineum and its determinants: A cross-sectional study at a tertiary care hospital.

1. **Dr Sayali S. Jahagirdar**

Associate Professor
Dept of OBGY
Dr Panjabrrao Deshmukh Memorial Medical College
Amravati Maharashtra (India)
Res Add
12 Vyankatesh Gulmohor Colony Camp Amravati
Maharashtra (India)

2. **Dr Pushpa S Junghare**

Professor and Head of Department
Dept of OBGY
Dr Panjabrrao Deshmukh Memorial Medical College
Amravati Maharashtra (India)

3. **Dr Rani J Nimbalkar**

Assistant Professor
Dept of OBGY
Dr Panjabrrao Deshmukh Memorial Medical College
Amravati Maharashtra (India)

4. **Dr Shubhada S Karale**

Assistant Professor
Dept of OBGY
Dr Panjabrrao Deshmukh Memorial Medical College
Amravati Maharashtra (India)

Abstract:
Background:
India is a vast country with varied cultural and socioeconomic differences resulting in regional variations in delivery practices .Institutional delivery allows skilled attendance at birth and is one of the key interventions helpful in reducing risk of both maternal and neonatal morbidity and mortality. However, this risk is reduced only when the pregnant woman has reached sufficiently early to the medical facility where adverse factors affecting maternal and neonatal outcome can be addressed to and complications can be prevented or properly dealt with. On few occasions however the pregnant women reach the place of delivery too late or deliver soon on reaching the medical facility. This delay may affect both maternal and neonatal outcome resulting in underachieving of desired goals of promotion of institutional deliveries. There may be numerous factors which may be responsible for this delay, which includes lack of transport, long distance to medical facility, social, economic and few more. With this background, the present study was conducted with the objective to find prevalence of pregnant women coming head on perineum and its determinants at a tertiary care hospital.

Material and Methods:
All the pregnant women presented in OBGY labour room of our tertiary care hospital in Vidarbha (Maharashtra) with head on perineum during the period of 1 year (1st March 2022 – 28th Feb 2023) were included in the study. Data was collected by personal interview using printed questionnaire. Total 32 pregnant women with head on perineum were enrolled in the study using convenient sampling .Data was analysed using proportions and percentages.
Results : The most common factor revealed for delay in pregnant women reaching at place of delivery was lack of transport facilities 65 % , followed by far distance from hospital 56% followed by household responsibilities in 37.5%
Conclusion: Proper and targeted counselling of pregnant woman and family members throughout the antenatal period, providing them financial help when needed shall definitely help to overcome few of these and improve these delays.

Keywords: Head on perineum, institutional delivery, delay, tertiary care hospital

Introduction

Safe labour and delivery are a right of every pregnant woman. India is the second most populous country next to China with birth rate of 19.3 per thousand population.[1] However, in India ,due to wide differences in socioeconomic conditions ,geographic variations ,disparity in doctor -patient ratio , there may be disparity delivery services availble.Institutional deliveries is one of the ways to provide skilled attendance for every labouring woman and help in safe delivery. By introducing Janani Suraksha Yojana in 2005, Government is tried to incentivise institutional deliveries by providing direct cash transfers to women who deliver in medical facilities rather than home.[2] Medical facilities whether government or private are regulated by laws and are equipped with all necessities for safe labour and delivery. If at all the pregnant woman has some high-risk factors, the women may be referred to a higher centre, if need be, after primary management at the medical facility. Thus, it reduces both maternal and neonatal mortality and morbidity to a great extent. One of the millennium development goals of India, Millennium Development Goal 5 includes two targets 5A and 5B.Target 5A is to achieve 75 % reduction in global maternal mortality ratio (MMR), and 5B is aimed to achieve universal access to reproductive health.[3]

Stages of labour and their duration

Labour is the body's natural process of child birth and is divided into 3 stages. The first stage is when the woman starts having contractions which steadily increase along with effacement and dilatation of the cervix. The second stage is when the cervix is fully dilated followed by the birth of the baby with the peak of uterine contraction and the third stage is delivery of the placenta and the membranes.[4] In women who are delivering for the first time, labour takes around 12 to 14 hours whereas those who have delivered earlier can expect delivery in 7 to 8 hours. [5]Ideally ,in women who are full term and have no risk factors, are expected to reach the medical facility when they begin to experience mild labour pains and they are probably in the first stage of labour. However, this is not the rule of thumb, and there are many other symptoms, women might experience for which they should visit the medical facility. Other reasons for immediate visit to a medical facility for a check-up are labor pains at any gestational age, leaking per vaginum,bleeding per vaginum, absence of fetal movements, discomfort while passing urine or unable to pass urine, feeling of something coming out per vaginum, sudden reduction in size of the abdomen.

Admission in early labour and institutional delivery

Admission of a pregnant woman in the first stage of labour provides doctors time to evaluate her and decide on line of management. Many of the pregnant women are registered in antenatal clinics and have regular antenatal visits. Basic investigations like Haemoglobin, blood group and urine routine examination along with serum markers are done during these visits. However, for those pregnant women who have never undergone antenatal check-up nor done any investigations it gives a window period to get these essential investigations done. More than 80% of pregnant woman in India are anaemic and thus are prone to complications during labor and delivery. Poor eating habits, diet deficient in iron, not taken iron supplementation during pregnancy, excessive vomiting and worm infestation are major reasons for developing iron deficiency anemia.Immediate correction of anaemia by transfusion of packed red cells is lifesaving for such women .For women who are having one or more high risk factors like HDP, GDM, Lower respiratory tract infection, UTI,coagulation abnormalities, cardiac diseases can be identified ,investigated and managed appropriately. Ultrasound can be done to find out wellbeing of the baby, amount of liquor and placental localization if not done earlier. For women who are in preterm labor, corticosteroids are given to enhance lung maturity, intravenous magnesium sulphate for neuroprotection and uterine relaxants to delay delivery can be given. In case of expected preterm baby, neonatal expert can be informed prior, arrangements for basic and advanced neonatal resuscitation can be done. Woman to get time to familiarize with the labour room environment and be vocal about their needs and problems.

Material and Methods

All pregnant women who presented in OBGY labour room in emergency are evaluated by the OBGY doctor on duty. Detailed history is taken followed by per abdomen and per vaginum examination as per requirement. The following were the inclusion and exclusion criteria in selecting women for our study.

Inclusion criteria

1. Women having pregnancy beyond 28 weeks of gestation in second stage of labour including those who had IUD
2. Women having pregnancy beyond 28 weeks of gestation who delivered within 30 minutes of admission including those having IUD

Total 34 women fulfilled above criteria and were enrolled in the study by convenience sampling. Personal interview was conducted by the doctor on duty using printed questionnaire and information required was obtained from the patient and accompanying relatives.

Results:

Total 34 women were enrolled in this study and there were no dropouts.

1. Age:

Age limit	No of women
18-24 yrs	12
25- 29 yrs	12
30-34 yrs	5
35yrs and above	3
Total	32

2. Gestational age

Weeks of gestation	No of women
< 34 weeks (Early preterm)	6
34-36.6 weeks (Late preterm)	7
37-40 weeks (term)	16
Beyond 40 weeks	3
Total	32

3. Primigravida versus multigravida:

Gravida status	No of woman
Primigravida	13
Having 1 living issue	13
Having 2 or more living issues	6

4. High risk factors

High risk factor	No of women
Maternal anaemia	9
HDP	4
Breech	3
Polyhydramnios	2
Meconium stained liquor	3
Gestational diabetes	1
No high risk	7

5. No of antenatal visits:

No of visits	No of woman
No visit	1
1 visit	1
2 visits	2
3 visits	5
4 visits	14
5 visits	6
6 visits	2
7 visits	1
Total	32

Immunization status: 100 % All women received 2 doses of tetanus toxoid
Complications at birth: Maternal and neonatal

Maternal complications	No of woman
Post partum haemorrhage	3
Vaginal tears	2
Blood transfusion	3
Retained placenta	1
Outlet Forceps	1
Postpartum ecclampsia	1
No complications	21
Total	32

14 babies needed admission in NICU

Neonatal complications	No of neonates
Preterm low birth weight	6
Respiratory distress syndrome	3
Meconium aspiration syndrome	2
Anal atresia	1

Hypoglycemia at birth	1
Severe IUGR	1
Total	14

Reasons for delay in reaching medical facility

No	Reason for delay	No of women	%
1	Lack of transport	24	75
2	Far distance from hospital	18	56%
3	Lack of awareness /antenatal counselling	14	14%
4	Fear of delivery /Section	6	18.75%
5	Socioeconomic problems	9	28%
6	Household responsibilities	12	12%
7	Others	3	9%
	Total		

Discussion

Institutional delivery is incentisized to assure skilled attendance at birth thereby to provide safe labour and delivery services to pregnant women. It is one of the key interventions to reduce the risk of maternal and neonatal mortality and morbidity .However this risk can be reduced only when the pregnant women has reached sufficiently early at the medical facility so that interventions can be done to facilitate safe delivery and to have both healthy mother and baby. Delay in reaching at medical facility deprives the pregnant woman of this opportunity and indirectly reflects on poor quality of reproductive health services .Ours is a tertiary care medical college and hospital at a district place that offers comprehensive medical services including OBGY services to the whole district. Many women who are having high risk pregnancies are referred to our hospital. Some are registered while most are unregistered women who are referred in emergency. Delay may also result in adverse maternal and fetal outcome in few women resulting in under achieving the primary goals of promoting institutional deliveries. The various reasons that women gave for delay in arrival at medical facility are discussed below. In most of the women there was more than one reason which caused delay in arrival. Few of these factors are correctable but majority of them are related to inadequate transport facilities and poor socioeconomic status of families. By improving number of antenatal visits and targeted counselling to women with high-risk pregnancies will help in the long run. The reasons causing delay are multifactorial but point to important lacunae in delivery our health care system.

1. Lack of transport -24 (75%)

This was the reason for majority of cases Women complained that there are very few means of transport to reach hospital from their place, available at limited times, and very few private transport facilities. Problems are worst during night time when the only private transport in the form of autorickshaws are available which charge exorbitantly high.

2. far away from hospital-18 (56%)

Women staying in periphery of Amravati district, in hilly regions of Dharani and Chikhaldhara, it takes more than 3 hours in reaching our medical facility due to bad roads and hilly terrain.

3. Lack of awareness /inadequate antenatal counselling-14 (44%)

This was seen in Primigravida where they are experiencing labor pains for the first time and are not adequately counselled about symptoms when to reach medical facility. This was also seen amongst those women who had high risk factors but either ignored them or were not adequately counselled during antenatal visits. Few women had no or very few antenatal visits which are not sufficient to provide desired antenatal care.

4. Fear of delivery /Operative intervention (18.75%)

There is a myth amongst many elderly women that reaching early at hospital may land the pregnant women in operative delivery. Also, some women who fear per vaginal examination or have painful experience at previous deliveries delay going to medical facilities.

5. Socioeconomic problems (28%)

Women and their families had no money to arrange for transport and for delivery expenses. Delay was due to time required to arrange for money from friends and well -wishers. In women with nuclear families where husband has gone out for work and have elderly or sick family members, absence of responsible person to accompany the women to hospital was the cause of delay.

6. Household responsibilities (37.5%)

In many Indian household ,the women is expected to complete all household chores of the day and make arrangements of food , of taking care of the elder sibling before leaving home.

7. Others: (9 %)
In 3 patients who reached for delivery head on perineum perceived no labor pains or other symptoms but went in precipitate labor.

Conclusion:
Every pregnant woman desire to have a safe delivery and give birth to a healthy baby.Instituitional delivery assures the above to a great extent especially in cases where the mother is having high risk factors during pregnancy. Delay in arrival of labouring woman to the medical facility sometimes results in complications both to her and the neonate. Most of the reasons given by women for delay are related to lack of basic infrastructure, poor socioeconomic condition of families and poor quality of antenatal care. Increasing no of antenatal visits, targeted counselling of high risk pregnant women , conducting antenatal counselling sessions for near term patients, providing free ambulance services for transport are some of the ways to improve on these delays .During antenatal visit , the pregnant women and her family should be encouraged to decide beforehand their place of delivery , given information regarding obstetric symptoms requiring urgent attention and make both financial and transport arrangements .This planning will help in reducing delays and definitely help India to achieve its Millennium developmental goals.

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