

Evaluation Predisposing Factors and Outcome of Preterm Birth in a Tertiary Hospital of Kohat, KPK

Predisposing Factors and Outcome of Preterm Birth

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ABSTRACT

Objective: To evaluate the level of preterm birth, factors predisposing to preterm birth and its outcome during perinatal period.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the Obstetrics / Gynae Department, Liaquat Memorial hospital (LMH) Kohat from March 2022 to November 2022.

Methods: Weeks of enrolled mother was 28 to 36 in this study, which was assessed from the menstrual period, last period. Clinical records and ultrasound reports diagnosed the gestational period of the women. Other patients were excluded from the study such as APH, shock and Preeclampsia. Structured questionnaire was used for assessment in this study. Mother also assessed by interview in which face to face contact was used. Hospital record was also used for data collection. SPSS 21 was used for statistical analysis

Results: During the study period, 200 patients were included, averaging 21.4±4 years in age. The majority were multigravida (66%), hailing predominantly from rural areas (64%) and possessing a primary education level (51%). Of these participants, about 79% were categorized as late preterm (35-37 weeks gestation), while a quarter reported a history of abortion, and 86% disclosed exposure to spousal smoking.

Conclusion: Preterm birth remains a significant public health concern, but it is a challenge that can be addressed through collaborative efforts between healthcare professionals.

Key Words: Preterm birth, predisposing factors

Citation of article: Hamid BS, Zuhra H, Jabeen M, Raza N, Fareeha, Nayab S. Evaluation Predisposing Factors and Outcome of Preterm Birth in a Tertiary Hospital of Kohat, KPK. Med Forum 2024;35(7):41-43. doi:10.60110/medforum.350709.

INTRODUCTION

Preterm labor and delivery pose main encounters for obstetricians and neonatologists alike, being the main cause of newborn morbidity and death and it is also important problem of community.^{1,2} Million babies (at least 15 million) are affected due to preterm birth over all in the world. It is alarming issue of the community which effect society badly.^{3,4} On gestational age, there are different categories for preterm birth (<28 weeks: extremely preterm), (28-<32: weeks very preterm) (32-33 : completed weeks moderate preterm), and (34-36 weeks: late preterm).⁵⁻⁷

Studies shows that 80% of neonatal death occurred in the world and preterm births occurred in Asia and Sub-Saharan Africa at least 85% which is very significant and alarming issue of the world.⁸ In most of the countries which affected with preterm birth, before 37 weeks of gestation the birth occurring which is approximate 19% in these countries while in India this percentage is vary which is approximate 23.3%.^{9,10} A study, showed that there is higher danger of preterm labor in case of induced abortion face. In a community-based study showed that most of premature labors experiential were late preterm. Research showed an probabilities ratio of roughly 3 for the reappearance of preterm labor with high risk factor for its recurrence. In the study of Schaarf et al, observed that the risk of consequent twin preterm birth. It is low in former term singleton delivery as compare is particularly higher next a previous preterm singleton delivery. Premature births are due to most of factors in which included, assisted reproductive techniques, Depression higher number of births of women, Maternal health problems, maternal age and increased frequency of working mother and mentally issue.¹¹ It is also reported that late preterm infants and moderate preterm infants are affected and increased in numbers due to some other issues such as cesarean deliveries and labor induction. Cesarean deliveries increased preterm terms births.^{12,13}

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Received: December, 2023

Accepted: January, 2024

Printed: July, 2024

METHODS

Descriptive cross sectional study was conducted in Obstetrics/Gynae department of Liaquat Memorial hospital (LMH) Kohat from the duration of March 2022 to November 2022. Weeks of enrolled mother was 28 to 36 in this study which was assessed from the menstrual period, last period. Clinical records and ultrasound reports diagnosed the gestational period of the women. Other patients were excluded from the study such as APH, shock and Preeclampsia. Structured questionnaire was used for assessment in this study. Mother also assessed by interview in which face to face contact was used. Hospital record was also used for data collection. SPSS 21 was used for statistical analysis.

RESULTS

During the study period, 200 patients were included, averaging 21.4±4 years in age. The majority were multigravida (66%), hailing predominantly from rural areas (64%) and possessing a primary education level (51%). Of these participants, about 79% were categorized as late preterm (35-37 weeks gestation), while a quarter reported a history of abortion, and 86% disclosed exposure to spousal smoking. Among the cohort, over half presented with premature rupture of membranes (53.7%), while 16% were diagnosed with preeclampsia and 12% with urinary tract infections. Hemoglobin levels were evaluated in 80 patients, revealing severe anemia in 65% of cases. Furthermore, neutrophilia was identified in 44% of patients, and elevated urinary pus cells were observed in 32%.

Table No.1: characteristics of the patients

Characteristic	Value
Total Patients	200
Mean Age	21.4±4 years
Multigravida	66%
Rural Areas	64%
Primary Education	51%
Late Preterm	79%
History of Abortion	25%
Spousal Smoking	86%
Premature Rupture of Membranes	53.7%
Preeclampsia	16%
Urinary Tract Infections	12%

Table No.2: Pathological characteristics of patient

Laboratory Findings	Percentage
Severe Anemia (Hemoglobin)	65%
Neutrophilia	44%
Elevated Urinary Pus Cells	32%

DISCUSSION

Preterm birth play important role in research due its causative factors which promoting wide research. In

one studied which was conducted in in Chile showed that higher prevalence exist in two groups one group which have age of more than 38 years old and mother of below to 18 year old.¹⁴ In the present study , women were from two major groups 20 year old and plus and another group women ages 30 and plus which shows social customs exhibit early marriage and childbearing. A similar study result also showed in Iran, according this study the average maternal age of women was of 28.3±6. This result is very close to our study .¹⁵ Preterm labor and delivery pose main encounters for obstetricians and neonatologists alike, being the main cause of newborn morbidity and death and it is also important problem of community. Million babies (at least 15 million) are affected due to preterm birth over all in the world. It is alarming issue of the community which effect society badly. On gestational age, there are different categories for preterm birth (<28 weeks: extremely preterm), (28-<32: weeks very preterm)(32-33 : completed weeks moderate preterm), and (34-36 weeks: late preterm). Studies shows that 80% of neonatal death occurred in the world and preterm births occurred in Asia and Sub-Saharan Africa at least 85% which is very significant and alarming issue of the world. In most of the countries which affected with preterm birth, before 37 weeks of gestation the birth occurring which is approximate 19% in these countries while in India this percentage is vary which is approximate 23.3%. Premature births are due to most of factors in which included, assisted reproductive techniques, Depression higher number of births of women, Maternal health problems, maternal age and increased frequency of working mother and mentally issue. It is also reported that late preterm infants and moderate preterm infants are affected and increased in numbers due to some other issues such as cesarean deliveries and labor induction. Cesarean deliveries increased preterm terms births.

It is coupled, with partial admittance to medically facilities, which is conceivable clarification for these result could be the increased likelihood of attractive in Active bodily activity in rustic parts and also for preterm birth inhibition.¹⁶ In another EPIPAGE study, sowed that there is higher danger of preterm labor in case of induced abortion face.¹⁷ In a community-based study showed that most of premature labors experiential were late preterm. ¹⁸ Research showed an probabilities ratio of roughly 3 for the reappearance of preterm labor with high risk factor for its recurrence.^{19,20} In the study of Schaarf et al, observed that the risk of consequent twin preterm birth. It is low in former term singleton delivery as compare is particularly higher next a previous preterm singleton delivery.²¹

CONCLUSION

Preterm birth remains a significant public health concern, but it is a challenge that can be addressed through collaborative efforts between healthcare professionals, policymakers, and the public. By prioritizing awareness and taking proactive measures to mitigate risk factors, we can work toward reducing the

incidence of preterm birth and improving outcomes for families worldwide.

Author's Contribution:

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Conflict of Interest: The study has no conflict of interest to declare by any author.

Source of Funding: None

Ethical Approval: No.155 dated 20.11.2021

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