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Original Research Article

Influence of mode of delivery on maternal and neonatal outcomes in singleton term breech presentation: a prospective observational study from a tertiary care centre

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ABSTRACT

Background: The optimal mode of delivery for singleton term breech presentation remains one of the most debated issues in modern obstetrics. While planned caesarean section has been associated with improved neonatal outcomes, it is also accompanied by increased maternal morbidity and implications for future pregnancies. Conversely, carefully selected women may achieve favorable outcomes with planned vaginal breech delivery when strict selection criteria and skilled obstetric care are available. Objective of the study was to compare maternal and neonatal outcomes between planned vaginal delivery and caesarean section in singleton term breech pregnancies managed according to predefined clinical selection criteria.

Methods: A prospective observational study was conducted in the Department of Obstetrics and Gynaecology at M. L. B. Medical College, Jhansi, India, between July 2023 and September 2024. 160 women with singleton breech pregnancies at ≥37 weeks of gestation were included. Women with multifetal gestation or intrauterine fetal demise were excluded. The mode of delivery was determined according to institutional protocols based on fetal presentation, estimated fetal weight, pelvic adequacy, fetal wellbeing, and obstetric indications. Maternal outcomes, including postpartum hemorrhage, infection, operative complications, prolonged recovery, and duration of hospital stay, were compared with neonatal outcomes, including NICU admission and neonatal mortality.

Results: Among 3,956 term deliveries, 188 (4.75%) presented with breech presentation, of whom 160 were randomly selected for the study. Caesarean section was performed in 109 women (68.1%), while 51 (31.9%) underwent vaginal delivery. Maternal morbidity was significantly higher following caesarean section, with increased rates of postoperative infection, prolonged hospital stays, postpartum hemorrhage, and delayed recovery. In contrast, neonatal morbidity was significantly higher following vaginal delivery, with increased NICU admissions and all neonatal deaths occurring in this group. No maternal mortality was observed in either group.

Conclusions: Caesarean section was associated with improved short-term neonatal outcomes, whereas vaginal delivery resulted in lower maternal morbidity in carefully selected women. These findings support an individualized approach to the management of singleton term breech presentation, emphasizing rigorous patient selection, adherence to standardized delivery protocols, and the availability of experienced obstetricians to optimize both maternal and neonatal outcomes.

Keywords: Breech presentation, Singleton pregnancy, Caesarean section, Vaginal breech delivery, Maternal outcome

INTRODUCTION

Breech presentation, defined as a longitudinal fetal lie in which the buttocks or lower extremities present first, complicates approximately 3–5% of singleton pregnancies at term. Although its incidence is considerably higher during the second trimester, spontaneous cephalic version occurs in most pregnancies before term, resulting in a

marked decline in breech presentation as gestation advances.[1,2]

The optimal mode of delivery for singleton term breech presentation remains one of the most controversial topics in contemporary obstetric practice. For several decades, vaginal breech birth was considered an acceptable standard of care when performed by experienced obstetricians. However, publication of the multicentre Term Breech Trial by Hannah et al in 2000 demonstrated lower perinatal mortality and serious neonatal morbidity with planned caesarean section compared with planned vaginal delivery, leading to a substantial worldwide increase in caesarean delivery for breech presentation.[3]

Subsequent evidence has challenged the routine use of caesarean section for all term breech pregnancies. The large prospective PREMODA study demonstrated that favourable neonatal outcomes could be achieved with planned vaginal breech birth when strict selection criteria, standardized intrapartum management, and experienced obstetric care were available.[4] Furthermore, long-term follow-up of children enrolled in the Term Breech Trial found no significant difference in neurodevelopmental outcomes at two years of age between planned caesarean section and planned vaginal birth.[5] More recent systematic reviews and meta-analyses have similarly concluded that although planned caesarean delivery is associated with lower short-term neonatal morbidity and mortality, carefully selected women undergoing planned vaginal breech birth experience lower maternal morbidity, emphasizing the importance of individualized clinical decision-making rather than a universal approach.[6,7]

Reflecting this evolving evidence, several international professional organizations have revised their recommendations. The Royal College of Obstetricians and Gynaecologists (RCOG), the American College of Obstetricians and Gynecologists (ACOG), and the Society of Obstetricians and Gynaecologists of Canada (SOGC) recommend that planned vaginal breech delivery may be offered to appropriately selected women after comprehensive counselling regarding maternal and neonatal risks and benefits, provided that delivery is conducted by experienced obstetricians in centres with facilities for immediate caesarean section if required.[8-10]

The decision regarding the mode of delivery therefore requires balancing short-term neonatal benefits against maternal morbidity and the long-term consequences of caesarean section, including postoperative complications, placental implantation disorders, uterine rupture, intra-abdominal adhesions, and repeat caesarean delivery in subsequent pregnancies.[11,12] These considerations are particularly relevant in low- and middle-income countries such as India, where women frequently have more than one pregnancy and where preserving obstetric skills in assisted vaginal breech delivery remains important. The progressive decline in opportunities for training in vaginal breech birth has raised concerns regarding loss of expertise among young obstetricians, especially in settings where emergency operative intervention may not always be immediately available.[13]

Despite evolving international recommendations, prospective evidence from India comparing maternal and neonatal outcomes according to the mode of delivery remains limited. Most available Indian studies are retrospective or involve relatively small sample sizes, and comparatively few have evaluated outcomes within the framework of predefined institutional selection criteria for vaginal breech delivery.[14-16] Institution-specific prospective data are therefore essential to guide evidence-based clinical decision-making and optimize both maternal and neonatal outcomes in routine obstetric practice.

The present study was undertaken to compare maternal and neonatal outcomes between vaginal delivery and caesarean section in singleton term breech pregnancies managed according to standardized institutional selection criteria at a tertiary care centre.

METHODS

Study design and setting

This prospective observational study was conducted in the Department of Obstetrics and Gynaecology at Maharani Laxmi Bai Medical College, Jhansi, Uttar Pradesh, India, over a period of 15 months from July 2023 to September 2024. The study was approved by the Institutional Ethics Committee before commencement, and written informed consent was obtained from all participants before enrolment.

Study population

Pregnant women presenting with singleton breech pregnancy at term (37–42 weeks of gestation) who were admitted for delivery during the study period were screened for eligibility.

Inclusion criteria

Patients with singleton pregnancy, with breech presentation confirmed clinically and by ultrasonography, gestational age between 37+0 and 42+0 weeks, and with live fetus were included.

Exclusion criteria

Patients with multifetal gestation, intrauterine fetal demise, and major fetal anomalies incompatible with life were excluded.

Sample size

The minimum sample size was calculated using the standard formula for estimating prevalence in observational studies.

$$n = \{Z^2P(1-P)\}/\{d^2\}$$

Where Z=1.96, expected prevalence (P) of term breech presentation was 4%, and allowable error (d) was 3%, resulting in a calculated sample size of 160 participants. Consecutive eligible women fulfilling the inclusion criteria were recruited until the required sample size was achieved.

Clinical evaluation

At admission, all women underwent detailed clinical evaluation including demographic profile, obstetric history, antenatal care details, previous mode of delivery, and associated medical or obstetric disorders. General physical and obstetric examinations were performed in all participants.

Ultrasonography was used to confirm breech presentation, determine the type of breech, estimate fetal weight, assess fetal head attitude, placental location, amniotic fluid volume, fetal anomalies, and fetal well-being. Routine laboratory investigations were performed according to institutional protocol.

Mode of delivery

The mode of delivery was determined by the attending consultant obstetrician according to predefined institutional protocols. Planned vaginal breech delivery was considered in women fulfilling all of the following criteria: frank or complete breech presentation, estimated fetal weight between 2.5 and 3.5 kg, flexed fetal head, clinically adequate maternal pelvis, no evidence of fetal compromise, and availability of an experienced obstetrician for assisted breech delivery. Caesarean section was performed in women with one or more of the following: footling breech presentation, estimated fetal weight >3.5 kg, fetopelvic disproportion, hyperextended fetal head, fetal distress, obstetric contraindications to vaginal birth, and failed progress of labour or other standard obstetric indications.

Outcome measures

The primary maternal outcomes included: postpartum haemorrhage, postoperative or puerperal infection, operative complications, prolonged recovery (>4 weeks), hospital stay >3 days, and maternal mortality.

The primary neonatal outcomes included: NICU admission and neonatal mortality. Secondary outcomes included birth weight distribution and mode of delivery.

Statistical analysis

Data were entered into Microsoft Excel and analysed using IBM statistical package for the social sciences (SPSS) statistics version 25.0 (IBM Corp., Armonk, NY, USA).

Continuous variables were expressed as mean±standard deviation (SD), while categorical variables were summarised as frequencies and percentages.

Comparisons between vaginal delivery and caesarean section groups were performed using the Chi-square test or Fisher's exact test, as appropriate. A two-tailed p value <0.05 was considered statistically significant.

RESULTS

During the study period, 3,956 women delivered at term in our institution, of whom 188 (4.75%) presented with singleton breech presentation. After applying the predefined inclusion and exclusion criteria, 160 women were enrolled in the study randomly and constituted the final study population.

The mean maternal age was 25.29±3.54 years. Primigravidae constituted 58.13% of the study population, while 41.87% were multigravidae. The mean gestational age at delivery was 38.56±1.28 weeks. Frank breech was the predominant presentation (68.75%), followed by complete breech (26.25%) and footling breech (5.00%).

Of the 160 women included in the study, 109 (68.12%) underwent caesarean section, whereas 51 (31.88%) achieved vaginal breech delivery following appropriate clinical selection.

Table 1: Baseline characteristics of the study population.

Variable	Overall (n=160), N (%)
Maternal age (years), mean±SD	25.29±3.54
Primigravida	93 (58.13)
Multigravida	67 (41.87)
Gestational age (weeks), mean±SD	38.56±1.28
Frank breech	110 (68.75)
Complete breech	42 (26.25)
Footling breech	8 (5.00)
Vaginal delivery	51 (31.88)
Cesarean section	109 (68.12)

The relatively high caesarean section rate reflected adherence to institutional selection criteria, whereby vaginal breech delivery was reserved for women meeting predefined eligibility criteria, while caesarean section was performed for obstetric indications or when vaginal delivery was considered unsafe.

Maternal outcomes according to mode of delivery

Maternal morbidity differed significantly according to the mode of delivery. Women who underwent caesarean section experienced a higher frequency of postoperative

complications than those who delivered vaginally. Postpartum hemorrhage occurred in 13 (11.9%) women following caesarean section compared with 3 (5.9%) after vaginal delivery. Similarly, postoperative infection was observed more frequently after caesarean section (14.7% versus 1.9%).

Delayed recovery beyond four weeks and prolonged hospital stay (>3 days) were also significantly more common among women undergoing caesarean delivery. Pelvic floor trauma, however, occurred more frequently following vaginal birth. No maternal deaths were recorded in either group. These findings suggest that although caesarean delivery may improve neonatal safety, it is associated with greater short-term maternal morbidity.

Table 2: Comparison of maternal outcomes according to mode of delivery.

Maternal outcome	Vaginal delivery (n=51), N (%)	Cesarean section (n=109), N (%)	P value
Postpartum hemorrhage	3 (5.9)	13 (11.9)	<0.05*
Infection	1 (1.9)	16 (14.7)	<0.05*
Operative complications	1 (1.9)	8 (7.3)	<0.05*
Prolonged recovery (>4 weeks)	2 (3.9)	14 (12.8)	<0.05*
Hospital stay >3 days	3 (5.9)	28 (25.7)	<0.05*
Pelvic floor trauma	4 (7.8)	1 (0.9)	—
Anaesthesia-related complications	0	5 (4.6)	—
Maternal mortality	0	0	—

*P value statistically significant

Neonatal outcomes according to mode of delivery

Neonatal outcomes showed a contrasting pattern. NICU admission was significantly more frequent following vaginal breech delivery, with 24 of 51 newborns (47.1%) requiring intensive care compared with 14 of 109 (12.8%) delivered by caesarean section.

Three neonatal deaths (1.9%) occurred during the study period, all in the vaginal delivery group. Two deaths were attributed to perinatal asphyxia, while one resulted from a congenital anomaly. No neonatal deaths occurred among infants delivered by caesarean section. These findings indicate that caesarean section was associated with superior short-term neonatal outcomes in the present study.

Table 3: Comparison of neonatal outcomes according to mode of delivery.

Neonatal outcome	Vaginal delivery (n=51), N (%)	Cesarean section (n=109), N (%)	P value
NICU admission	24 (47.1)	14 (12.8)	<0.05 *
Neonatal mortality	3 (5.9)	0	<0.05 *

*P value statistically significant

DISCUSSION

The present prospective observational study compared maternal and neonatal outcomes according to the mode of delivery in singleton term breech pregnancies managed using predefined institutional selection criteria. Our findings demonstrate the continuing dilemma in breech management; wherein improved neonatal outcomes associated with planned caesarean section must be balanced against increased maternal morbidity. In our cohort, caesarean section was associated with lower neonatal morbidity and mortality, whereas carefully selected women who underwent vaginal breech delivery experienced lower maternal morbidity, shorter hospital stay, and faster postoperative recovery. These findings support the concept that the optimal mode of delivery should be individualized rather than universally recommending caesarean section for all singleton term breech pregnancies.

One of the principal findings of the present study was the significantly lower incidence of adverse neonatal outcomes following caesarean section. Neonates delivered by caesarean section had significantly fewer NICU admissions, and no neonatal deaths occurred in this group, whereas all neonatal deaths occurred following vaginal delivery. These observations are consistent with the landmark Term Breech Trial, which demonstrated significantly lower perinatal mortality and serious neonatal morbidity following planned caesarean section compared with planned vaginal breech birth.[3,18] The publication of this trial substantially changed obstetric practice worldwide and resulted in a marked increase in caesarean delivery for breech presentation.

Subsequently, the PREMODA study challenged the routine recommendation of caesarean section for all breech presentations by demonstrating that carefully selected women undergoing planned vaginal breech birth under standardized intrapartum protocols achieved neonatal outcomes comparable to those undergoing planned caesarean section.[4] Likewise, long-term follow-up of children enrolled in the Term Breech Trial demonstrated no significant differences in neurodevelopmental outcomes at two years of age between planned caesarean and planned vaginal birth.[5] More recent systematic reviews and meta-analyses have concluded that although

planned caesarean section provides superior short-term neonatal protection, appropriate patient selection and skilled intrapartum management remain the most important determinants of successful vaginal breech birth.[6,7,19]

In the present study, vaginal breech delivery was offered only to women fulfilling strict institutional selection criteria, including frank or complete breech presentation, estimated fetal weight between 2.5 and 3.5 kg, flexed fetal head, clinically adequate maternal pelvis, reassuring fetal status, and the availability of an experienced obstetrician. Despite these precautions, neonatal morbidity remained significantly higher in the vaginal delivery group. These findings reinforce that even under carefully controlled circumstances, vaginal breech birth carries an increased risk of short-term neonatal complications and therefore requires meticulous patient selection, continuous fetal surveillance during labour, and immediate availability of operative intervention whenever indicated.

An equally important observation in our study was the significantly greater maternal morbidity associated with caesarean delivery. Women undergoing caesarean section experienced higher rates of postpartum haemorrhage, postoperative infection, operative complications, prolonged recovery, and longer hospital stay compared with women who delivered vaginally. These findings are biologically plausible because caesarean section is a major abdominal operation associated with increased blood loss, postoperative pain, anaesthetic complications, wound infection, delayed mobilisation, and increased healthcare costs. Similar findings have been reported by Silver et al who demonstrated increasing maternal morbidity with caesarean delivery, particularly in women likely to undergo future pregnancies.[11]

The long-term reproductive consequences of primary caesarean delivery should also be considered when counselling women with singleton breech presentation. Previous studies have demonstrated an increased risk of placenta previa, placenta accreta spectrum disorders, uterine rupture, postoperative adhesions, infertility related to pelvic adhesions, and repeat caesarean delivery in subsequent pregnancies.[11,12] These issues are particularly relevant in developing countries such as India, where women frequently desire more than one pregnancy. Consequently, counselling should extend beyond immediate neonatal outcomes and include discussion regarding future reproductive health.

Current international guidelines increasingly advocate an individualized approach rather than routine caesarean section for all singleton term breech pregnancies. The Royal College of Obstetricians and Gynaecologists (RCOG), American College of Obstetricians and Gynecologists (ACOG), and the International Federation of Gynecology and Obstetrics (FIGO) recommend that planned vaginal breech delivery may be offered to appropriately selected women after informed counselling, provided experienced obstetricians and facilities for emergency caesarean section are available.[8-10] Recent systematic reviews have similarly emphasized that successful vaginal breech birth depends on strict patient selection, standardized intrapartum management, and maintenance of operator expertise rather than the mode of delivery alone.[6,7]

Our findings are consistent with previous Indian studies. Airao et al reported improved neonatal outcomes following caesarean delivery while emphasizing that favourable outcomes can be achieved with vaginal breech birth in carefully selected women under experienced supervision.[14] Acharya et al likewise observed lower maternal morbidity following vaginal delivery but improved neonatal outcomes following caesarean section, findings comparable to those of the present study.[15] Maheshwari and Nakum also recommended individualized decision-making based on fetal presentation, estimated fetal weight, labour progress, maternal pelvic adequacy, and availability of skilled obstetric care.[16] Similar observations have been reported in recent population-based studies, supporting the external validity of our findings.[20]

The increasing preference for caesarean delivery has resulted in reduced opportunities for training in assisted vaginal breech birth, potentially affecting clinicians' confidence and expertise. International organizations therefore continue to emphasize structured training and supervised clinical experience to maintain competency in vaginal breech delivery, particularly in settings where emergency caesarean section may not always be immediately available.[13,17]

Overall, the findings of the present study support an individualized approach to the management of singleton term breech presentation. Planned caesarean section was associated with improved short-term neonatal outcomes, whereas carefully selected vaginal breech delivery resulted in lower maternal morbidity. Appropriate patient selection, adherence to standardized institutional protocols, and the availability of experienced obstetricians remain fundamental to optimizing both maternal and neonatal outcomes.

Limitations

Several limitations should be considered while interpreting the results. This was a single-centre observational study, and therefore the findings may not be generalizable to all healthcare settings, particularly primary and secondary care centres. The sample size was modest, which may have limited the ability to detect differences in relatively uncommon adverse maternal or neonatal outcomes. In addition, the observational design precludes complete elimination of selection bias because the mode of delivery was determined according to clinical judgement and institutional protocols rather than random allocation. Furthermore, neonatal follow-up was limited to the early

postnatal period, and long-term neurodevelopmental outcomes were not assessed.

Clinical implications

The findings of this study support an individualized approach to the management of singleton term breech presentation. Although caesarean section was associated with superior short-term neonatal outcomes, vaginal breech delivery demonstrated lower maternal morbidity when performed in carefully selected women under the supervision of experienced obstetricians. Therefore, routine caesarean section for every breech presentation may not be justified. Instead, appropriate patient selection, standardized labour management protocols, continuous fetal surveillance, and immediate availability of operative intervention should guide clinical decision-making. Maintaining competence in assisted vaginal breech delivery through structured training programs remains essential, particularly in resource-limited settings where emergency caesarean delivery may not always be immediately available.

Future directions

Future multicentre prospective studies involving larger populations are needed to validate these findings across different healthcare settings. Long-term follow-up of children delivered vaginally and by caesarean section would provide valuable information regarding neurodevelopmental outcomes beyond the neonatal period. In addition, future research should evaluate predictive models incorporating maternal, fetal, and intrapartum factors to improve selection of women who may safely undergo planned vaginal breech delivery.

CONCLUSION

The present prospective observational study demonstrates that the mode of delivery significantly influences both maternal and neonatal outcomes in singleton term breech presentation. Planned caesarean section was associated with improved short-term neonatal outcomes, reflected by lower NICU admission rates and the absence of neonatal mortality in the present cohort. In contrast, vaginal breech delivery was associated with lower maternal morbidity, including reduced postoperative infection, shorter hospital stay, and faster recovery, when performed in appropriately selected women.

These findings indicate that neither routine caesarean section nor universal vaginal delivery should be recommended for all singleton term breech pregnancies. Instead, management should be individualized after careful assessment of maternal, fetal, and intrapartum factors, with adherence to standardized selection criteria and evidence-based institutional protocols.

Maintaining expertise in assisted vaginal breech delivery remains essential, particularly in tertiary referral centres and resource-constrained settings, where emergency operative delivery may not always be immediately available. Future multicentre studies with larger sample sizes and long-term neonatal follow-up are required to further refine patient selection and optimize outcomes in singleton term breech presentation.

Recommendations

Future multicentre prospective studies involving larger populations are needed to validate these findings across different healthcare settings. Long-term follow-up of children delivered vaginally and by caesarean section would provide valuable information regarding neurodevelopmental outcomes beyond the neonatal period. In addition, future research should evaluate predictive models incorporating maternal, fetal, and intrapartum factors to improve selection of women who may safely undergo planned vaginal breech delivery.

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REFERENCES

1. Cunningham FG, Leveno KJ, Dashe JS, Hoffman BL, Spong CY, Casey BM. Williams Obstetrics. 26th edition. McGraw-Hill; 2022.
2. Hickok DE, Gordon DC, Milberg JA, Williams MA, Daling JR. The frequency of breech presentation by gestational age at birth. Am J Obstet Gynecol. 1992;166:851-2.
3. Hannah ME, Hannah WJ, Hewson SA, Hodnett ED, Saigal S, Willan AR. Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial. Lancet. 2000;356:1375-83.
4. Goffinet F, Carayol M, Foidart JM, Alexander S, Uzan S, Subtil D, et al. Is planned vaginal delivery for breech presentation at term still an option? Results of the PREMODA study. Am J Obstet Gynecol. 2006;194:1002-11.
5. Whyte H, Hannah ME, Saigal S, Hannah WJ, Hewson S, Amankwah K, et al. Outcomes of children at two years after planned cesarean birth versus planned vaginal birth for breech presentation. Am J Obstet Gynecol. 2004;191:864-71.
6. Wängberg Nordborg J, Svanberg T, Strandell A, Carlsson Y. Term breech presentation-Intended cesarean section versus intended vaginal delivery-A systematic review and meta-analysis. Acta Obstet Gynecol Scand. 2022;101(6):564-76.
7. Fernández-Carrasco FJ, Cristóbal-Cañadas D, Gómez-Salgado J, Vázquez-Lara JM, Rodríguez-Díaz L, Parrón-Carreño T. Maternal and fetal risks of planned vaginal breech delivery vs planned caesarean section for term breech birth: A systematic review and meta-analysis. J Glob Health. 2022;12:04055.

8. Royal College of Obstetricians and Gynaecologists. Management of Breech Presentation. Green-top Guideline No. 20b. London: RCOG; 2017.
9. American College of Obstetricians and Gynecologists. Committee Opinion No. 745: Mode of term singleton breech delivery. Obstet Gynecol. 2018;132:e60-3.
10. FIGO Working Group on Good Clinical Practice in Maternal–Fetal Medicine. Good clinical practice advice: Planned vaginal birth for singleton breech presentation. Int J Gynaecol Obstet. 2024;167(2):517-25.
11. Kotaska A, Menticoglou S, Gagnon R, Farine D, Basso M, Bos H, et al. SOGC Clinical Practice Guideline No. 226: Vaginal delivery of breech presentation. J Obstet Gynaecol Can. 2009;31(6):557-66.
12. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. Obstet Gynecol. 2006;107(6):1226-32.
13. Jauniaux E, Ayres-de-Campos D, FIGO Placenta Accreta Diagnosis and Management Expert Consensus Panel. FIGO consensus guidelines on placenta accreta spectrum disorders. Int J Gynaecol Obstet. 2018;140(3):265-73.
14. Airao BB, Sharma VM, Zala RA, Vasava V. Fetomaternal outcome in breech delivery. Int J Reprod Contracept Obstet Gynecol. 2018;7:2480-5.
15. Acharya M, Kumar P, Shrestha R, Chhetri PB, Lamichhane M, Neupane S. Breech presentation and maternal and perinatal outcome in a tertiary care teaching hospital. JCMS Nepal. 2020;16:138-41.
16. Maheshwari A, Nakum KD. Fetomaternal outcome in breech presentation at term. Int J Med Sci Public Health. 2022;11:55-60.
17. Sorensen HA, Obel J, Schroll JB, Krebs L. Breech delivery in low-income settings: A systematic review of perinatal and maternal outcomes in vaginal versus cesarean breech deliveries. Int J Gynaecol Obstet. 2023;161(1):17-25.
18. Hofmeyr GJ, Hannah M. Planned caesarean section for term breech delivery. Cochrane Database Syst Rev. 2015;7:CD000166.
19. Berhan Y, Haileamlak A. The risks of planned vaginal breech delivery versus planned caesarean section for term breech birth: a meta-analysis. BMC Pregnancy Childbirth. 2016;16:130.
20. Basnet T, Thapa BD, Das D, Shrestha R, Sitaula S, Thapa A. Maternal and Perinatal Outcomes of Singleton Term Breech Vaginal Delivery at a Tertiary Care Center in Nepal: A Retrospective Analysis. Obstet Gynecol Int. 2020;2020:4039140.

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