



MATERNAL AND FETAL RISKS OF PLANNED VAGINAL BREECH DELIVERY VS PLANNED CAESAREAN SECTION FOR TERM BREECH BIRTH

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Abstract:

The management of breech presentations, irrespective of the delivery method-vaginal or cesarean-continues to be a topic of considerable debate within the field of obstetrics. This investigation sought to assess the relative risks of maternal and fetal mortality, along with perinatal morbidity, linked to vaginal delivery in comparison to elective cesarean section in instances of breech presentation.

The study was conducted on 830 patients at Zliten Medical Center, Libya, from January 2022 to April 2024. The age distribution of participants was as follows: 18-24 years (29.87%), 25-30 years (36.50%), 31-35 years (23.25%), and 36-40 years (10.36%). In agreement with previous research, the predominant proportion of expectant mothers exhibiting a breech presentation fell within the age range of 18 to 30 years.

The findings revealed that 42.65% of breech deliveries were vaginal, while 57.34% were performed via cesarean section. Neonatal complications associated with both vaginal and cesarean breech deliveries included clavicle fractures (6.50%), femur fractures (3.49%), brachial plexus injuries (5.06%), cephalhematoma (3.97%), intracranial bleeding (5.78%), and pneumothorax.

Maternal complications during labor in breech presentation cases included vaginal hematoma (9.87%), vaginal lacerations (9.03%), perineal injuries (7.83%), decline in hemoglobin levels (9.39%), and postpartum endometritis (9.75%), while 54.09% of cases had no complications.

These findings highlight the importance of selecting vaginal delivery in carefully evaluated breech cases, alongside ensuring proper training for obstetricians in vaginal breech delivery techniques, addressing medicolegal concerns, and encouraging physicians to perform more vaginal breech deliveries to reduce the high rate of cesarean sections in such cases.

Keywords: Breech presentation, Cesarean delivery, Breech complications, Induced vaginal delivery, Spontaneous delivery, Libya.

1. Introduction:

Breech presentation, where the fetus is positioned feet or buttocks first instead of the head, is the most common type of abnormal fetal position. This position is associated with increased risks of neonatal asphyxia, newborn mortality, and maternal complications. The management of breech delivery is one of the most debated topics in obstetrics, with ongoing discussions about whether vaginal birth or cesarean section is the better approach. While cesarean delivery is often viewed as the safer option, it is linked to higher rates of postpartum maternal complications in developed countries and can lead to issues such as anemia, urinary tract infections, wound separation, endometritis, muscle pain, headaches, reduced sexual satisfaction, digestive problems, fever, infections, abnormal bleeding, and stress urinary incontinence.

There are three main strategies for managing breech presentation: (1) attempting external cephalic version (ECV) followed by vaginal delivery if successful or cesarean section if labor fails, (2) planning a cesarean delivery without attempting ECV, and (3) planning a vaginal delivery for low-risk cases. Research indicates that planned vaginal breech delivery carries a higher risk of neonatal asphyxia, traumatic injuries, morbidity, and mortality compared to planned cesarean delivery. However, data on labor induction or augmentation in breech deliveries remains limited. Studies suggest that neonatal outcomes may be similar between induced and spontaneous labor in breech presentations.

Although most fetuses are in a head-down position at birth, approximately 3–4% remain in breech position at term. Earlier in pregnancy, breech presentation is more common, with rates of 20% at 28 weeks and 15% at 32 weeks. Many breech fetuses naturally turn to a head-down position before delivery as the fetus adjusts to the optimal position in the uterus. Persistent breech presentation may correlate with fetal malformations and complications concerning the levels of amniotic fluid, abnormal placental placement, or uterine anomalies, though in some cases, no specific cause is identified.

Breech presentation is linked to higher rates of perinatal mortality and morbidity compared to head-down positions, primarily due to prematurity, congenital anomalies, and birth-related asphyxia or trauma. Cesarean section has been proposed as a way to reduce these risks, and in many countries across Northern Europe and North America, it has become the standard approach for breech delivery. Historically, the practice of vaginal breech delivery has been correlated with heightened neonatal morbidity and mortality rates when juxtaposed with elective cesarean section. Nevertheless, this issue persists as a subject of contention, given that retrospective investigations have yielded inconsistent findings.

This study aims to evaluate various aspects of breech delivery and compare perinatal outcomes between planned vaginal breech delivery and elective cesarean section for breech presentation in a hospital setting.

1.2 Vaginal Breech Birth (VBB):

Breech presentation occurs in about 3%–4% of all term pregnancies. Vaginal breech deliveries (VBDs) are linked to a tenfold higher risk of perinatal mortality compared to vaginal cephalic deliveries (VCDs). A breech birth happens when the baby's feet or buttocks are positioned to emerge first, with the head positioned closest to the mother's chest. Although breech presentation is common earlier in pregnancy, most babies naturally turn into a head-first (vertex) position by the 36th week, which is considered the safest for delivery.

1.3 CESAREAN BREECH BIRTH:

Cesarean section is frequently regarded as the most secure alternative for breech deliveries, especially in circumstances involving a double footling breech, a constricted maternal pelvis, or a fetus of considerable size. Intentional cesarean delivery for breech presentation has been correlated with diminished perinatal and neonatal mortality rates, a decrease in short-term neonatal morbidity, and enhanced Apgar scores at five minutes when compared to vaginal breech deliveries. The determination of the delivery method for breech infants is made on a case-by-case basis. In cases of preterm labor with breech presentation, an emergency cesarean section is generally recommended. However, if the fetus has already died in utero or if the maternal risks of surgery are high, labor induction and vaginal delivery may be considered⁽⁵⁾.

In modern obstetric practice, a cesarean section is the preferred approach for transverse fetal positions, regardless of fetal viability. In some cases, women go into labor before a scheduled cesarean section. Depending on the stage of labor and fetal descent, the healthcare provider may decide whether to proceed with the cesarean or allow a vaginal breech birth if it is deemed safer at that moment.

Several large cohort studies indicate that planned cesarean delivery reduces neonatal morbidity and mortality. However, studies conducted in high-resource settings suggest that when strict selection criteria are applied—such as an obstetric conjugate of more than 12 cm and an estimated fetal weight of at least 2.5 kg—the outcomes of vaginal breech birth and planned cesarean section are comparable. Additionally, the presence of experienced practitioners and upright delivery positioning have been linked to safer vaginal breech births, with complication rates similar to cephalic deliveries. In spite of this, the number of planned cesarean sections is increasing worldwide. The need to restrict elective cesarean sections without a legitimate medical reason is highlighted by the trend linked to an increase in complications like hemorrhage, uterine rupture, and abnormal placentation. Obstetricians need evidence-based⁽⁶⁾ guidelines to decide which delivery method is best for each case. It may be possible to reduce maternal and fetal complications by encouraging vaginal deliveries when medically possible. National protocols for managing breech births currently incorporate a number of selection criteria.

1.4 Causes and Risk Factors:

Breech presentation poses higher risks for both the mother and baby during vaginal or cesarean deliveries. For the mother, there is an increased chance of injuries to the genital tract, while the baby may face risks such as preterm birth, umbilical cord prolapse, or trauma during birth. Research from the Term Breech Trial (TBT) showed that scheduling a cesarean delivery for single breech pregnancies at full term reduces the risk of complications and death for the baby compared to vaginal delivery. This has led many hospitals to prefer planned cesarean sections for breech births. However, later studies from the TBT found no major differences in long-term outcomes, such as child development, neurological delays, or survival rates, between planned cesarean and vaginal deliveries.

While most breech presentations happen without a specific cause, around 15% are linked to issues with the baby or the uterus. Certain factors can increase the chances of a breech presentation, including:

Uterine	Fetal
Multiple pregnancies	Preterm delivery
Congenital uterine anomalies (e.g., septate uterus)	Large for gestational age (macrosomia)
Uterine fibroid tumors	Increased amniotic fluid levels (polyhydramnios)
Low-lying placenta (placenta previa)	Multiple gestation (twins or more)
	Congenital defects (e.g., anencephaly)

1.5 Types of Breech Presentation:

In a breech presentation, the fetus is positioned with its buttocks facing toward the birth canal. There are three main types, classified based on the position of the legs:

1. Complete (Flexed) Breech: Both legs are bent at the hips and knees, resembling a "cross-legged" sitting position.
2. Frank (Extended) Breech: Both legs are flexed at the hips but extended at the knees, making this the most common type of breech presentation.
3. Footling Breech: One or both legs are extended at the hips, with the foot positioned to emerge first.

At 28 weeks of gestation, approximately 20% of fetuses are in a breech position. However, the majority will naturally rotate into a cephalic (head-down) position before delivery, with only about 3% remaining in a breech presentation by full term.⁽⁸⁾

1.6 Differential Diagnosis:

Identifying breech presentation is less critical before 32–35 weeks of gestation, as the fetus often naturally shifts to a head-down (cephalic) position before birth. Breech presentation is typically detected during a clinical examination. During abdominal palpation, the fetal head is felt as a firm, round mass in the upper uterus, while the irregular shape of the buttocks and legs may be noted in the lower pelvis. Additionally, if fetal heart sounds are detected higher on the mother's abdomen, breech presentation may be suspected.

However, breech presentation is not diagnosed until labor starts in about 20% of cases. Fetal distress indicators like meconium-stained amniotic fluid may show up in these circumstances. A vaginal examination can confirm the breech position by feeling the sacrum or a foot through the cervical opening. For breech presentation, the following are the main differential diagnoses:

- **Oblique lie:** The head or buttocks of the fetus are situated in one iliac fossa, and it is positioned diagonally within the uterus.
- **Transverse lie:** The head is on one side of the pelvis and the buttocks are on the other, with the shoulder frequently being the part that presents. The fetus is positioned horizontally across the uterus.
- Another important condition to consider is unstable lie, where the fetal position frequently changes, potentially including breech presentation. Unstable lie is more common in cases of polyhydramnios or in multiparous women.

1.7 Management:

At term, the management options for breech presentation include:

1. External Cephalic Version (ECV)
2. Caesarean Section (C-section)
3. Vaginal Breech Birth (VBB)

i. External Cephalic Version (ECV)

ECV is a procedure in which the fetus is manually rotated from breech to cephalic presentation through the maternal abdomen. If successful, it increases the likelihood of vaginal delivery. The success rate of ECV is approximately 50%—with 40% success in primiparous women and 60% in multiparous women. In comparison, merely 10% of breech presentations in first-time mothers naturally change to a head-down position. External cephalic version (ECV) is typically advised starting at 37 weeks of gestation, although it may be considered as early as 36 weeks for primiparous women.

Potential Complications of ECV:

- Transient fetal heart rate abnormalities, which typically resolve on their own.
- More persistent fetal heart rate issues, such as fetal bradycardia (a slow fetal heart rate).
- Placental abruption (a rare but serious complication).
- Emergency Caesarean risk of approximately 1 in 200 cases.

There is no consensus regarding the contraindications for external cephalic version (ECV). Nevertheless, it is important for women to understand that the risk associated with undergoing ECV following a previous cesarean section is not significantly greater than that of the procedure being performed on a uterus without scarring.

ii. Caesarean Section

According to UK guidelines, an elective Caesarean delivery is advised if the external cephalic version proves ineffective, is contraindicated, or is refused by the woman. Evidence demonstrating that planned vaginal breech births result in higher perinatal morbidity and mortality rates than Caesarean deliveries for term infants supports this recommendation (13). The two groups' outcomes for mothers do not differ significantly. Because preterm infants have a higher head-to-abdominal circumference ratio, C/S is typically recommended, though the evidence for preterm babies is less clear.

iii Vaginal Breech Birth

A woman may choose to attempt a vaginal breech delivery, and in some cases, women with a breech presentation may arrive in advanced labor, making vaginal delivery the only viable option. However, a footling breech, where the feet and legs may pass through a cervix that is not fully dilated, is a contraindication for vaginal breech delivery, as it can lead to the head or shoulders becoming trapped. The most crucial advice during a vaginal breech delivery is to adopt a "hands-off" approach, as applying traction can cause the fetal head to extend and become stuck. It is essential to maintain the fetal sacrum in an anterior position, which can be achieved by supporting the fetal pelvis. However, if the baby does not deliver spontaneously, specific maneuvers may be required:

- Flexing the fetal knees to facilitate the delivery of the legs.
- Performing Lovsett's maneuver to rotate the body and deliver the shoulders.
- Using the Mauriceau-Smellie-Veit (MSV) maneuver to deliver the head while maintaining flexion..

1.9 Changing Trends in the Delivery of Breech Presentation

Vaginal Breech Delivery in Selected Cases Several studies have shown that vaginal delivery for breech presentations can be successfully performed in carefully selected

cases. Moreover, evolving health policies aimed at reducing the rising rates of Caesarean sections (C/S) have prompted a reevaluation of the routine use of C/S for breech presentations (15). Vaginal delivery should be prioritized in breech presentations when the following conditions are met:

1. No contraindications to vaginal birth, such as placenta previa, cephalopelvic disproportion, or cord presentation.
2. No previous Caesarean deliveries.
3. Gestational age of 36 weeks or more.
4. Spontaneous onset of labor.
5. Availability of skilled and experienced healthcare professionals to manage the delivery.
6. Absence of incomplete breech presentation (e.g., footling breech).
7. Estimated fetal weight between 2,000g and 4,000g.
8. No fetal anomalies that could lead to labor dystocia.
9. No hyperextension of the fetal head, which could complicate delivery.

1.10 Risks associated with vaginal breech birth

Vaginal breech delivery presents challenges, as the typical head-down vaginal birth involves the fetal head emerging first. Since the head is the largest component of the infant, its passage through the mother's pelvis creates sufficient space for the subsequent delivery of the rest of the body.

In cases of breech presentation, the delivery begins with the pelvis or hips, which may pose a challenge if the mother's pelvis is insufficiently sized to allow the fetal head to pass through. This situation can result in the baby's head becoming lodged in the birth canal, which can lead to severe complications, including the risk of injury or even fatality for the infant. Additionally, a vaginal breech delivery may cause harm to or compress the umbilical cord, thereby restricting the oxygen supply to the baby.

In the following situations, vaginal breech delivery must be avoided:

- Footling breech, where the baby's feet are below the buttocks.
- Abnormal fetal position, such as when the baby's neck is tilted backward.
- Large babies weighing more than 3.8 kg.
- Small babies weighing less than 2 kg.
- Narrow pelvis, which offers insufficient space for safe passage through the birth canal.
- Previous Caesarean delivery.

- Pre-eclampsia.
- Low-lying placenta.

Some serious complications related to vaginal breech delivery include:

- Trauma due to extended arms or head.
- Placental detachment.
- Injury to abdominal organs.
- Broken fetal neck.
- Umbilical cord prolapse, leading to asphyxia.

However, Vaginal breech delivery remains a viable option when conducted by a skilled physician, particularly in instances of complete breech or when the fetus is positioned bottom-first. This is contingent upon sufficient pelvic space and the absence of a prior Caesarean section in the woman ⁽¹⁷⁾.

2. Methodology:

Study Place:

This retrospective study was carried out at the Zliten Medical Center's Obstetrics and Gynecology department in Libya.

Study Period:

The study period was from January 2021 to April 2024.

Inclusion and Selection Criteria:

The default inclusion criteria for this study were:

1. Observational cohort studies were included; reviews, brief reports, guidelines, and comments were excluded.
2. Studies assessing perinatal mortality and morbidity in relation to delivery type with breech presentation.
3. Studies published between January 2010 and September 2020, in any language.
4. Studies where the sample consisted of full-term gestations (between 37 and 42 weeks of gestation), with a single fetus, and breech presentation.

Data Extraction:

Data were gathered utilizing a standard EXCEL spreadsheet. The information extracted encompassed the study duration, sample size, the country of the research, conclusions drawn from the study, both planned and actual delivery methods, intrapartum and early neonatal mortality rates, neonatal health complications, instances of birth trauma, admissions to the neonatal intensive care unit (NICU), cases of neonatal asphyxia or hypoxia, cord blood pH levels, 5-minute Apgar scores, and

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neurological health issues. The conclusions from each study were rephrased while preserving their original intent. Maternal and fetal complications were documented and analyzed. Fetal complications encompassed clavicle fractures, femur fractures, humerus fractures, brachial plexus injuries, cephalic hematomas, intracranial hemorrhages, pneumothorax, the necessity for ICU admission, and an APGAR score of less than 7 at five minutes. Maternal complications included vaginal hematomas, deep vaginal lacerations, perineal injuries exceeding second degree, a decrease in hemoglobin levels greater than 2 g/dL, and postpartum endometritis. Suspected fractures were assessed through standard radiographic techniques. ICU admission was characterized as a stay exceeding 24 hours in the neonatal intensive care unit. A postpartum vaginal hematoma measuring 3 cm or more was classified as a vaginal hematoma, while a deep vaginal laceration was defined as a nearly complete vaginal tear that necessitated surgical intervention. Postpartum endometritis was diagnosed based on fever ($\geq 38.5^{\circ}\text{C}$), groin pain, and uterine tenderness in the first month postpartum, excluding other causes. Postpartum hemorrhage was defined as a ≥ 2 g/dL decrease in hemoglobin between the last pre-delivery measurement and the level at 24 hours postpartum.

Statistical Analysis:

The baseline characteristics of the study population were summarized using frequencies, means, and standard deviations. Statistical significance was set at two-tailed $p < 0.05$.

3. Results and Discussion:

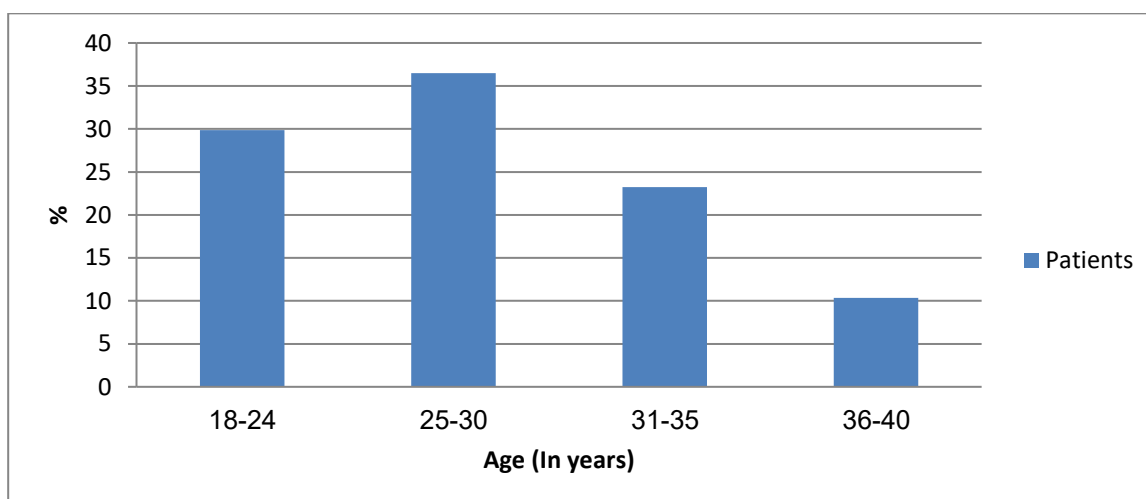
Of all singleton term deliveries, 2-3 percent result in breech presentation at term. Due to the ongoing controversy surrounding planned vaginal breech deliveries, the majority of breech pregnancies are now delivered via Caesarean section. Breech presentation is the most prevalent type of malpresentation and is linked to maternal morbidity, perinatal asphyxia, and mortality. There is little information on inducing labor in breech presentations. Between January 2022 and April 2024, 830 patients were enrolled in this study at Zliten Medical Center in Libya.

Table 1: Analysis of Breech presentation in relationship to age

S.No.	Age group (In years)	No. of cases (n=830)	Mean	P-Value
1	18-24	248	29.87	0.00181
2	25-30	303	36.50	
3	31-35	193	23.25	
4	36-40	86	10.36	

(% calculated from 830 cases)

In the analysis of breech presentation the age is categorized into 18-24 with 29.87%, 25-30 with 36.50%, 31-35 is 23.25% and 36-40 is 10.36% (Table 1 and Graph 1). In all studies most of the pregnant women will be lying high in 18 to 30 age category only. The P-Value is 0.00181 and data shows highly significant..



Graph 1: Analysis of Breech presentation in relationship to age

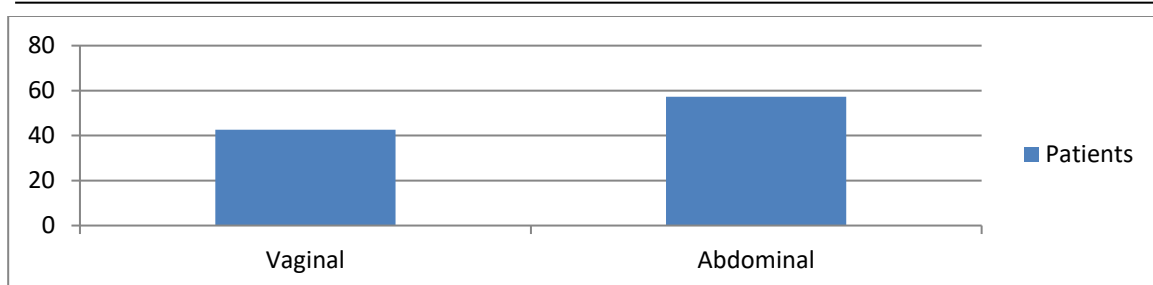
Table 2: Route of delivery in breech presentation

S.No.	Route of delivery	No. of cases (n=830)	Mean	P-Value
1	Vaginal	354	42.65	0.0276
2	Abdominal	476	57.34	

(% calculated from 830 cases)

Table 2 is tabulated with route of delivery in the hospital, mostly the delivery will be divided into two types, they are vaginal that means delivery through normal birth another one is abdominal that is c-section, in this study, the vaginal delivery is 42.65% and abdominal delivery is 57.34% (Graph 2). In a separate investigation focused on the mode of delivery, vaginal breech delivery was associated with a 2.4-fold increase in the risk of neonatal mortality and morbidity (NNM) (CI 1.2 to 4.9) and a 2.1-fold increase in the risk of a composite adverse outcome (CI 1.4 to 3.1). In contrast, planned caesarean delivery for breech presentation showed a 1.6-fold increase in the risk of NNM (CI 0.7 to 3.7) and a 1.5-fold increase in the risk of the composite outcome (CI 0.9 to 2.3), both when compared to planned vaginal delivery of a cephalic presentation.⁽¹⁸⁾.

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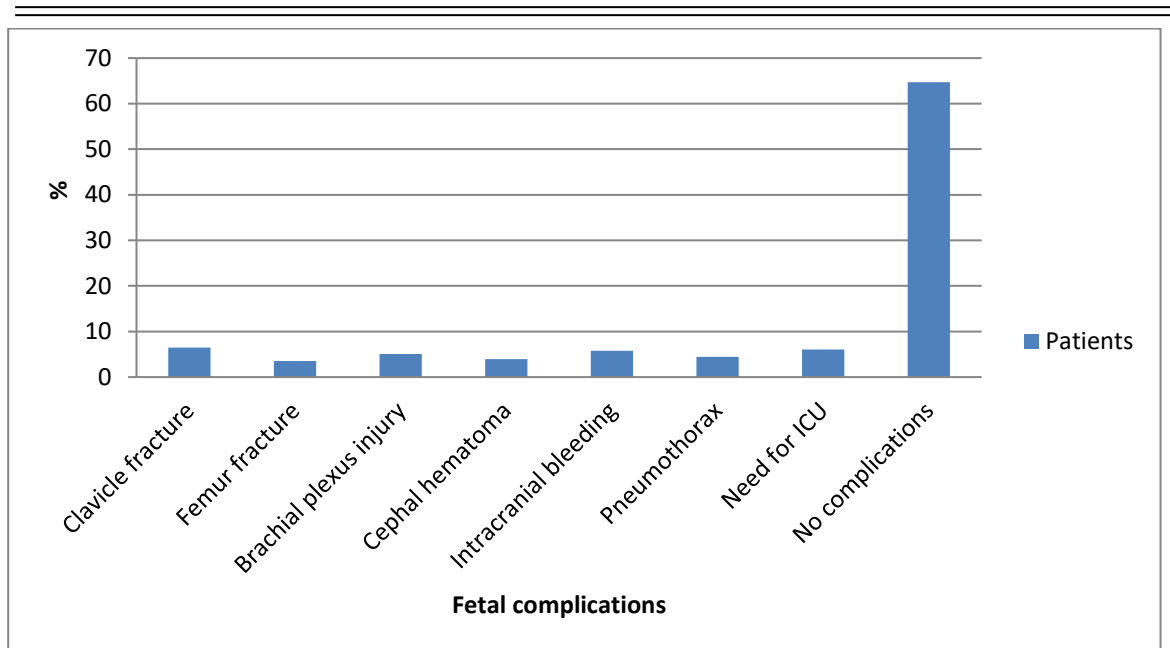
Graph 2: Route of delivery in breech presentation

Table 3: Fetal complication in Breech presentation

S.No.	Fetal complication	No. of cases (n=830)	Mean	P-Value
1	Clavicle fracture	54	6.50	0.0741
2	Femur fracture	29	3.49	
3	Brachial plexus injury	42	5.06	
4	Cephal hematoma	33	3.97	
5	Intracranial bleeding	48	5.78	
6	Pneumothorax	37	4.45	
7	Need for ICU	50	6.02	
8	No complications	537	64.69	

(% calculated from 830 cases)

Fetal complication due to the vaginal and c-section breech delivery includes clavicle fracture, femur fracture, brachial plexus injury, cephalo-hematoma, intracranial bleeding and pneumothorax (Table 3 and Graph 3). In clavicle fracture 6.50% are affected, femur fracture is 3.49%, brachial plexus injury is 5.06%, cephal hematoma is 3.97%, intracranial bleeding is 5.78%. The P-Value is 0.0741 respectively.



Graph 3: Fetal complication in Breech presentation

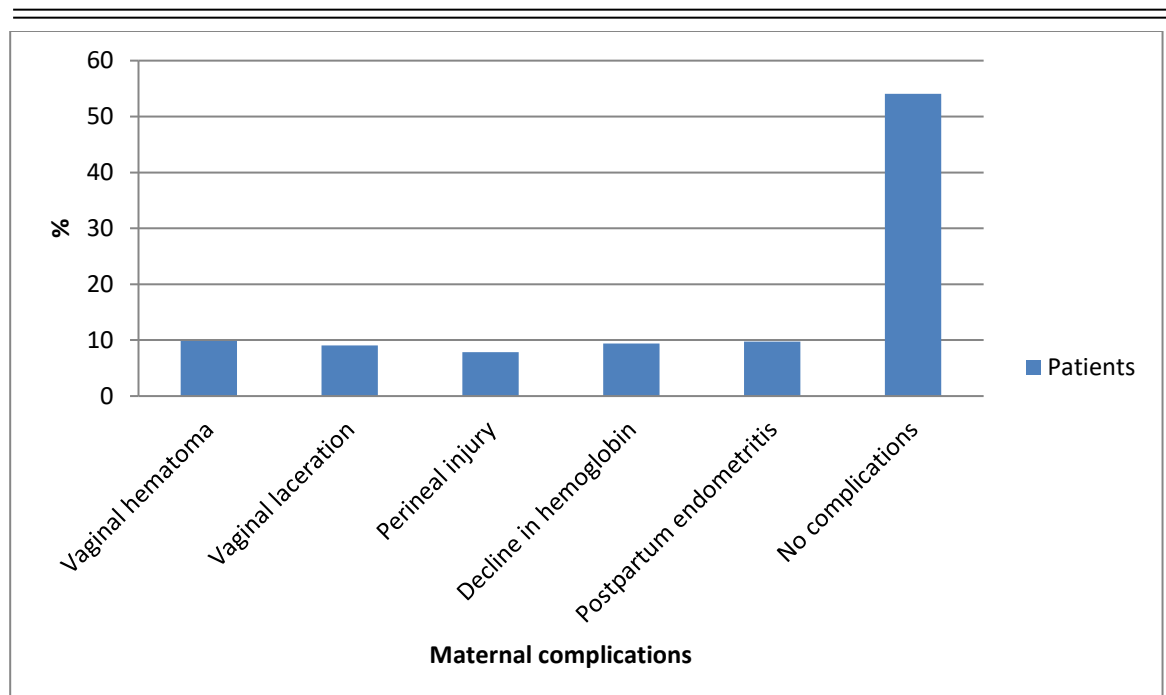
Table 4: Maternal complications of Breech presentation during labour

S.No.	Maternal complications	No. of cases (n=830)	Mean	P-Value
1	Vaginal hematoma	82	9.87	0.0677
2	Vaginal laceration	75	9.03	
3	Perineal injury	65	7.83	
4	Decline in hemoglobin	78	9.39	
5	Postpartum endometritis	81	9.75	
6	No complications	449	54.09	

(% calculated from 830 cases)

The maternal complications of breech presentation during the labour will be vaginal hematoma, vaginal laceration, perineal injury, decline in hemoglobin and postpartum endometritis. The patients affected with vaginal hematoma is 9.87 %, vaginal laceration is 9.03%, perineal injury is 7.83%, decline in hemoglobin is 9.39% and postpartum endometritis is 9.75% and no complications will be 54.09% respectively (Table 4 and Graph 4).

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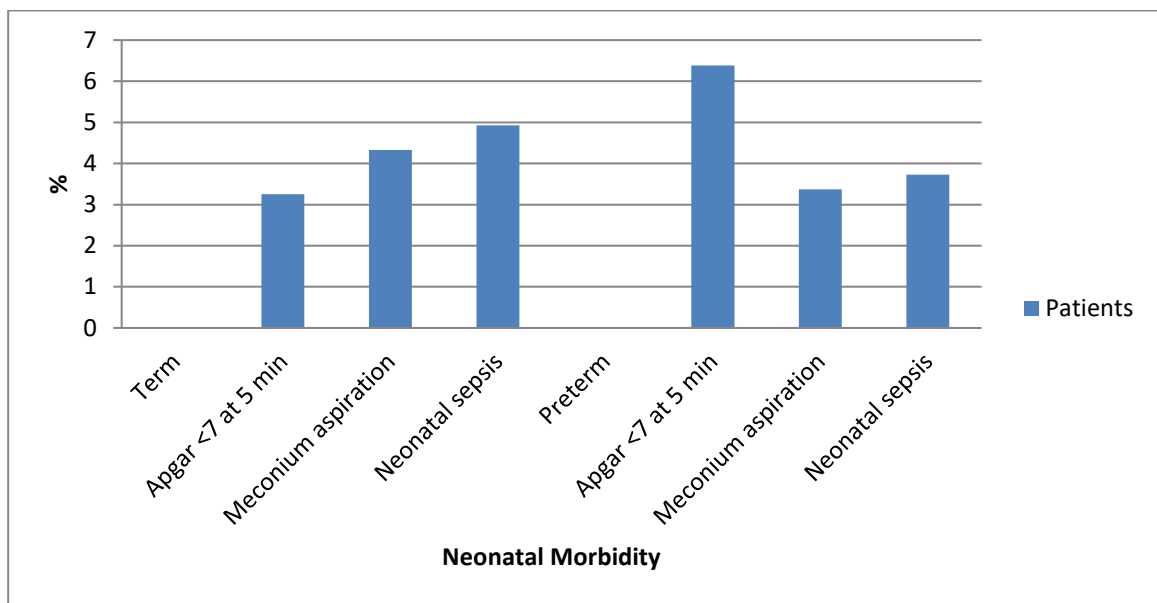
Graph 4: Maternal complications of Breech presentation during labour

Table 5: Type of neonatal morbidity in breech delivery

S.No.	Type of Morbidity	No. of cases (n=830)	Mean	P-Value
1	Term			0.0041
	Apgar <7 at 5 min	27	3.25	
	Meconium aspiration	36	4.33	
	Neonatal sepsis	41	4.93	
2	Preterm			
	Apgar <7 at 5 min	53	6.38	
	Meconium aspiration	28	3.37	
	Neonatal sepsis	31	3.73	

(% calculated from 830 cases)

In morbidity, term Apgar < 7 at 5 min is 3.25%, Meconium is 4.33% and neonatal sepsis is 4.93%. (Table 5 and Graph 5) Intrapartum asphyxia may be the cause of the vaginal breech delivery group's low 5-minute Apgar score, higher ICU admission, elevated neonatal asphyxia, and neurological morbidity. Once more, the duration of the second stage of labor determines the risk of intrapartum asphyxia in vaginal breech deliveries. The planned vaginal delivery had a small overall absolute risk of neurologic morbidity, but it was more than seven times higher than the planned c/s (0.7 versus 0.1%) ⁽¹⁹⁾. The meta-analysis has also shown the increased risk of neurological morbidity in the planned vaginal delivery group.



Graph 5: Type of neonatal morbidity in breech delivery

Despite the ongoing debate, most researchers advocate for vaginal delivery in carefully chosen cases of term singleton breech infants, as the relative risk of perinatal mortality and morbidity associated with planned vaginal breech delivery is considerably elevated. Nevertheless, the absolute risk of complications from vaginal breech delivery remains low. Evidence indicates an increased risk of perinatal mortality, birth trauma, and Apgar scores below 7 in cases of planned vaginal delivery. Conversely, the likelihood of severe maternal morbidity due to complications arising from a planned cesarean section is marginally higher.

4. CONCLUSION:

As a result, the number of Caesarean sections (C/S) performed on breech-present fetuses has been rising over time. In order to lower these rates, it is crucial to take into account vaginal delivery for specific breech presentations, make sure obstetricians are properly trained in breech delivery techniques, address medicolegal issues, and motivate doctors to perform more vaginal deliveries in these situations. However, when there are worries about fetal growth restriction, vaginal delivery should be avoided. Further research is required to fully examine this matter, as macrosomia should be further assessed as a risk factor for unfavorable perinatal outcomes.

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المخاطر الأمومية والجنينية للولادة المهبلية المقعدة المخطط لها مقابل الولادة القيصرية المخطط لها عند الولادة المقعدة في الحمل المكتمل

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المستخلص:

تعد معالجة حالات ولادة الجنين بالمقعدة بغض النظر عن طريقة الولادة المهبلية أو القيصرية موضوعاً منيراً للجدل في مجال التوليد تهدف هذه الدراسة إلى تقديم المخاطر النسبية لوفيات الأمهات والأجنة المرتبطة بالولادة المهبلية مقارنة بالولادة القيصرية الاختيارية في حالات ولادة الجنين بالمقعدة

تم إجراء الدراسة على 830 مريضة في مركز زليتن الطبي، ليبيا، في الفترة من يناير 2022 إلى أبريل 2024 توزعت أعمار المشاركات كما يلي: 18-24 سنة (29.87%)، 25-30 سنة (36.50%).

31-35 سنة (23.25%)، 36-40 سنة (10.36%)، وفقاً للأبحاث السابقة، فإن النسبة الأكبر من النساء الحوامل اللواتي يعانين من ولادة الجنين بالمقعدة من ضمن الفئة العمرية 18-30 سنة.

أظهرت النتائج أن 42.65% من الولادات المقعدة كانت مهبلية، بينما تمت (57.34%) منها بعملية قيصرية شملت المضاعفات المتعلقة بالمواليد لكلتا الطريقتين: كسور الترقوة (6.50%)، كسور الفخذ (3.49%)، إصابات الضفيرة العضدية (5.06%)، الورم الدموي في فروة الرأس (3.97%)، النزيف داخل الجمجمة (5.78%)، واستسقاء الرئة (4.45%)

أما المضاعفات المتعلقة بالأم أثناء المخاض في حالات الولادة المقعدة فشملت الورم الدموي المهبل، (9.87%)، التمزقات المهبلية (9.03%)، إصابات المجان (7.83%)، انخفاض مستوى الهيموجلوبين (9.39%)، والتهاب بطانة الرحم بعد الولادة (9.75%)، بينما لم تحدث مضاعفات في 54.09% من الحالات.

تشدد هذه النتائج على أهمية اختيار الولادة المهبلية في حالات المقعدة التي يتم تقديمها بعناية، مع ضمان تدريب الأطباء على تقنيات الولادة المهبلية المعنية ومعالجة المخاوف الطبية والقانونية وتقديم الأطباء على إجراء المزيد من الولادات المهبلية المقعدة الحد من المعدلات المالية للولادات القيصرية في مثل هذه الحالات

الكلمات المفتاحية: ولادة الجنين بالمقعدة، الولادة القيصرية. مضاعفات الولادة المقعدة، تحفيز الولادة المهبلية، الولادة الطبيعية، ليبيا.