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Original Research Article

An Analytical Study On Changing Trends with Respect to Etiology, Epidemiology, Management And Feto-Material Outcome in Placenta Previa at Tertiary Centre

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Abstract:

Background: Placenta previa is linked to higher rates of morbidity and death in both mothers and foetuses and is a major cause of antepartum haemorrhage. Its aetiology, epidemiology, and management have been impacted over time by improvements in diagnostic techniques, growing rates of caesarean sections, and changes in obstetric practices.

Objective: Examine evolving patterns in placenta previa patients at a tertiary care facility with regard to aetiology, epidemiology, treatment, and fetomaternal outcomes.

Methods: Medical records of patients at a tertiary care hospital who were diagnosed with placenta previa within a certain time period were reviewed for this retrospective analytical analysis. Data on clinical presentation, risk factors, maternal and foetal outcomes, management techniques, and demographic profile were gathered and examined.

Results: Previous caesarean sections and older mothers were linked to a higher frequency of placenta previa. Improved treatment practices and early ultrasound diagnosis led to better fetomaternal outcomes. Preterm birth and postpartum haemorrhage, however, continued to be serious issues.

Conclusion: Shifting patterns in placenta previa are a reflection of changing obstetric procedures, especially the increase in caesarean deliveries. Improving maternal and foetal outcomes requires early diagnosis and prompt management.

Keywords: Placenta Previa, Obstetric Practices, Caesarean Deliveries, Maternal, Antepartum Haemorrhage.
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Introduction

Placenta previa is a significant obstetric problem defined by the implantation of the placenta in the lower uterine segment, either partially or entirely obstructing the internal cervical os. It is a primary cause of antepartum haemorrhage and greatly impacts maternal and neonatal morbidity and mortality globally. The prevalence of placenta previa has exhibited an upward trajectory in recent decades, primarily due to the escalating rates of caesarean deliveries and other uterine surgical procedures [1].

The aetiology of placenta previa is multifaceted, with documented risk factors including prior caesarean birth, multiparity, advanced maternal age, history of uterine curettage, and numerous gestations. Alterations in reproductive patterns, postponement of childbearing, and heightened use of assisted reproductive technologies have further impacted its epidemiology. Advancements in diagnostic techniques, especially the prevalent application of ultrasonography, have enabled early and precise identification of placenta previa, hence enhancing antenatal planning and management [2]. Management options have advanced considerably, encompassing expectant management for stable patients and scheduled caesarean birth for substantial placenta previa instances. Enhanced blood transfusion services, advanced anaesthesia procedures, and refined surgical expertise have resulted in improved maternal outcomes [3].

Notwithstanding these developments, placenta previa continues to be linked with significant problems, including severe haemorrhage, placenta accreta spectrum diseases, premature birth, and heightened infant morbidity. Comprehending the evolving trends in its aetiology, epidemiology, and administration is crucial for enhancing care. This retrospective analytical study seeks to

investigate trends and assess fetomaternal outcomes in patients of placenta previa at a tertiary care centre [4].

Methods

This retrospective analytical study was conducted at a tertiary care center by reviewing medical records of patients diagnosed with placenta previa over a specified study period.

Study Design: Retrospective hospital-based analytical study.

Study Population: All pregnant women diagnosed with placenta previa during the study period.

Inclusion Criteria

- Confirmed cases of placenta previa by ultrasonography
- Patients who delivered at the study institution

Exclusion Criteria

- Incomplete medical records
- Patients referred after delivery

Data Collection: Data were obtained from hospital records and included:

- Demographic details (age, parity)
- Obstetric history (previous cesarean sections, abortions)
- Gestational age at diagnosis and delivery
- Type of placenta previa (major/minor)
- Associated conditions (placenta accreta, anemia)
- Management approach (conservative vs surgical)
- Mode of delivery
- Maternal outcomes (hemorrhage, transfusion, ICU admission)
- Fetal outcomes (birth weight, prematurity, NICU admission, perinatal mortality)

Statistical Analysis

- Data entered into statistical software
- Descriptive statistics expressed as percentages and means
- Comparative analysis performed where applicable
- p-value < 0.05 considered statistically significant

Results

Table 1: Gestational Age at Time of Admission

Gestational Age (weeks)	No. of Cases	Percentage (%)
28 – 32	37	24.66%
33 – 36	61	40.66%
37 – 40	52	34.66%

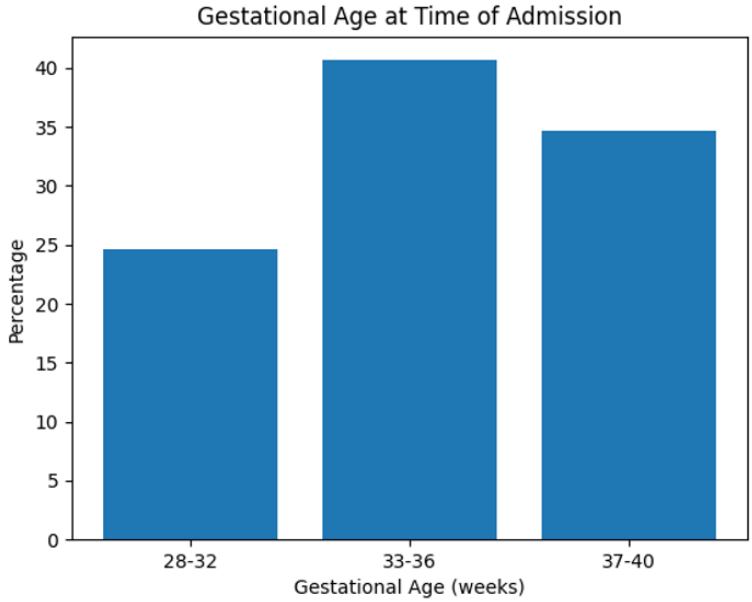

Figure 1: Gestational age at time of admission

Table 2: Gravidity Distribution of Placenta Previa

Parity	No. of Cases	Percentage (%)
Primi	22	14.66%
2nd Gravida	33	21.81%
3rd Gravida	38	25.45%
4th Gravida	27	18%
5th Gravida or more	30	20%

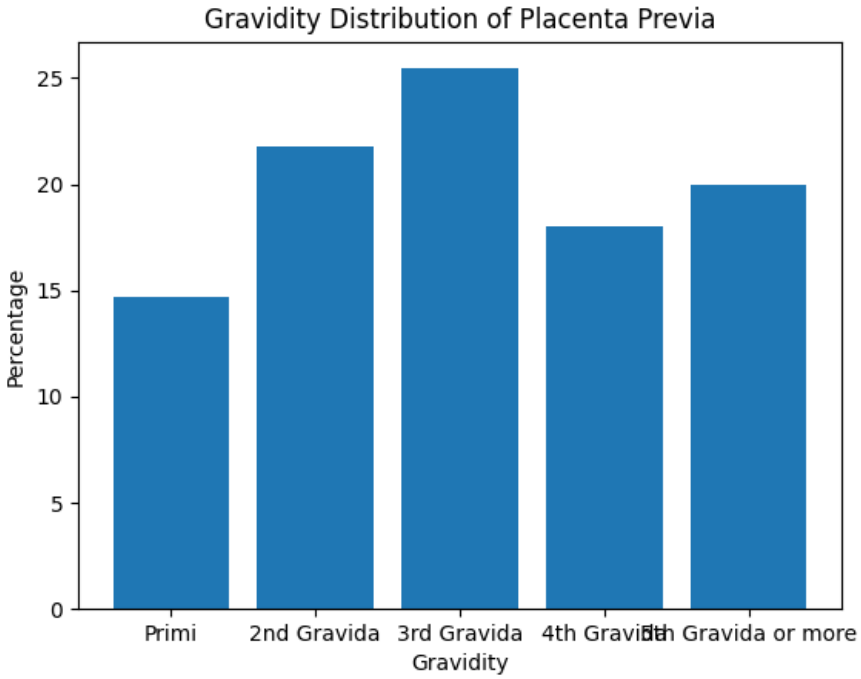

Figure 2: Gravidity distribution of placenta Previa

Table 3: Outcome in Different Types of Placenta Previa

Type (Grade)	Spontaneous Vaginal Delivery	Caesarean Section	Caesarean Hysterectomy
Grade I	17 (68%)	8 (32%)	0
Grade II a	15 (39.5%)	23 (60.5%)	0
Grade II p	3 (11.11%)	27 (88%)	0
Grade III & IV	4 (6.66%)	46 (76.6%)	10 (16.66%)

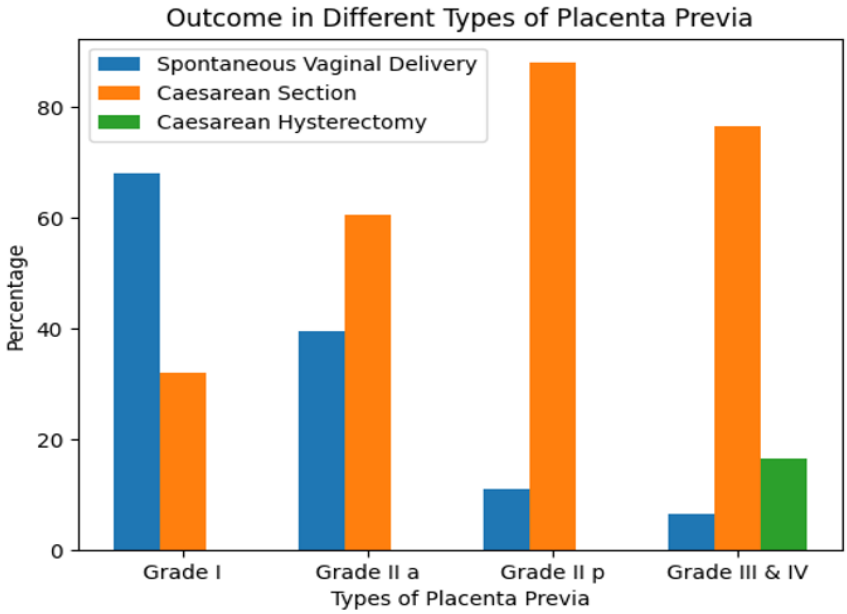

Figure 3: Outcome in different types of placenta Previa

Table 4: Previous History of Cases

Previous Status	No. of Cases	Percentage (%)
Previous surgical intervention / endometrial insult	98	65.33%
SVD (Spontaneous Vaginal Delivery)	30	20%
Primi	22	14.66%

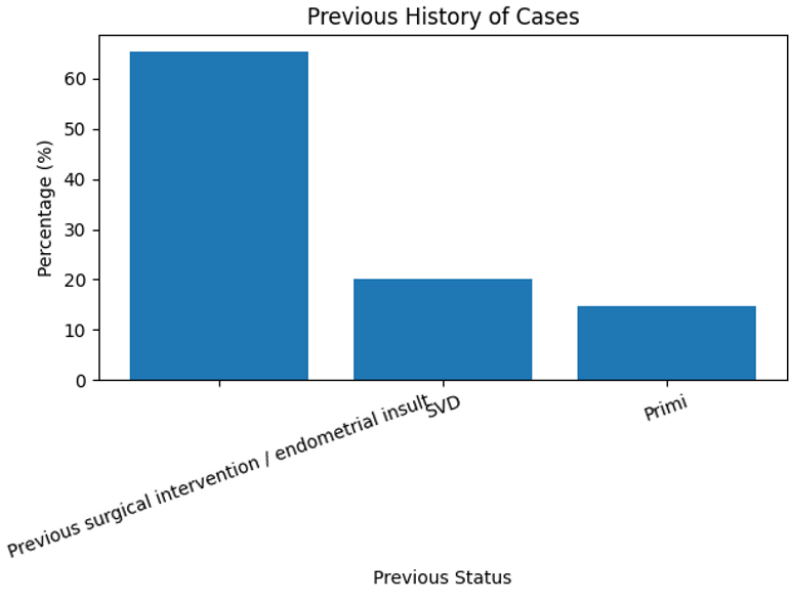

Figure 4: Previous history of cases

Table 5: Fetal Outcome in Cases of Placenta Previa

Outcome	No. of Cases	Percentage (%)
Live births healthy on discharge	94	62.72%
IUD & still birth	35	23.63%
Early neonatal death in NICU	20	13.63%

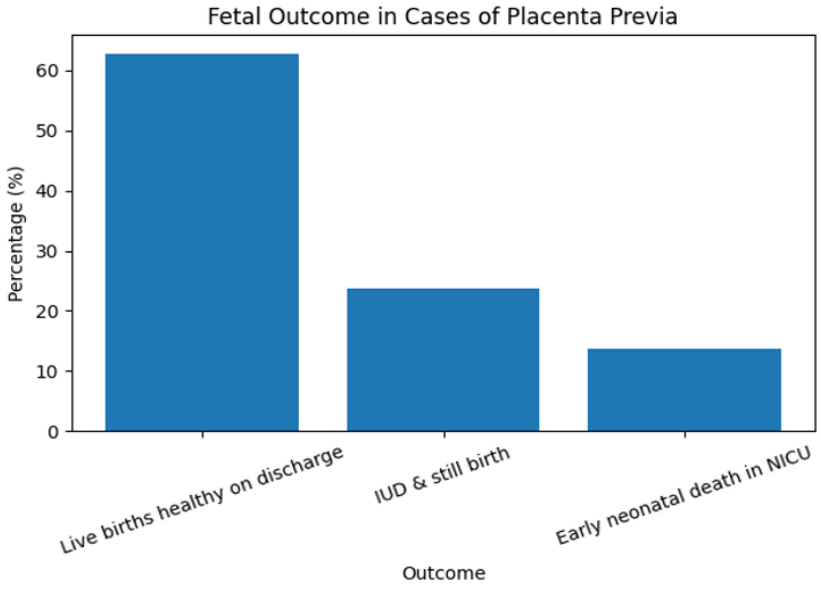

Figure 5: felt outcome in cases in placenta Previa

Table 6: Previous Surgical Status of Cases of Placenta Previa

Surgical Intervention	No. of Cases	Percentage (%)
Spontaneous Abortion	17	11.33%
SVD (Spontaneous Vaginal Delivery)	30	20%
D&E	30	20%
Previous 1 Caesarean Section (1 CS)	34	22.66%
Previous 2 Caesarean Sections (2 CS)	6	4%
Previous 3 Caesarean Sections (3 CS)	11	7.33%
Primi	22	14.66%

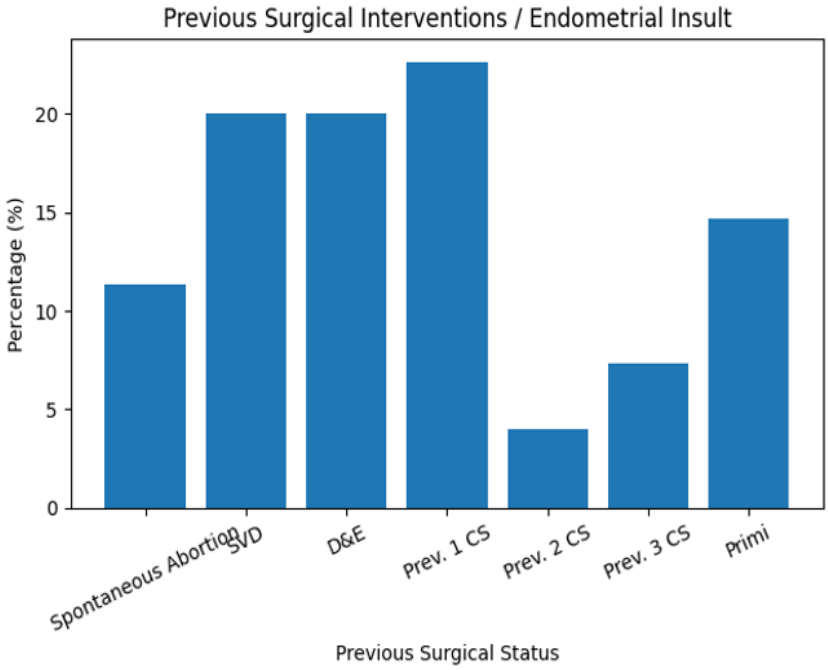

Figure 6: Previous surgical interventions

Table 7: Nature of Bleeding in Placenta Previa

Type of Placenta Previa	Recurrent Mild (29.33%)	Recurrent Severe (19.3%)	Continuous Bleeding (43.33%)
Grade I	11 (25%)	0	9 (13.8%)
Grade II (a)	16 (36.36%)	6 (20.18%)	12 (18%)
Grade II (p)	5 (11.36%)	6 (20.18%)	7 (10.7%)
Grade III & IV	11 (25%)	18 (59.30%)	65 (55%)

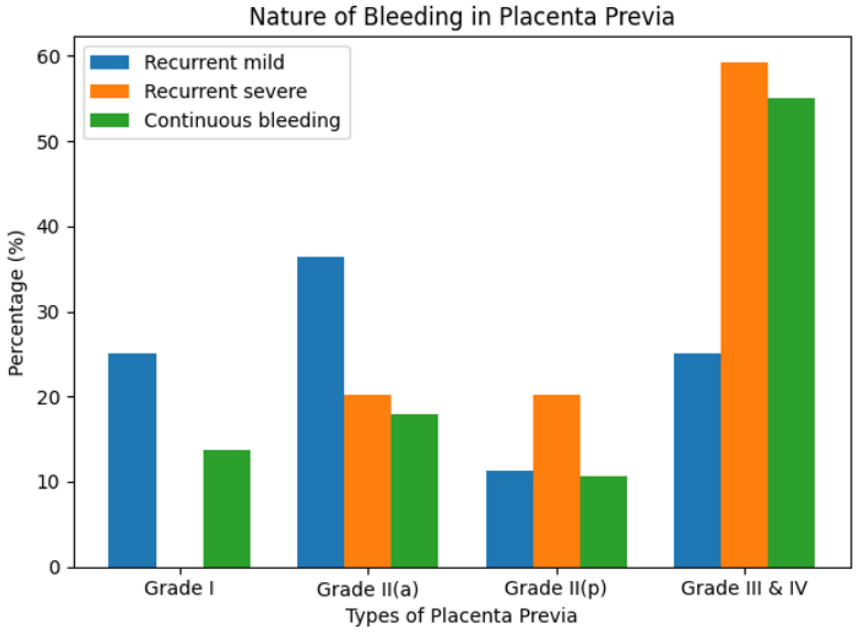

Figure 7: Nature of bleeding in placenta Previa

Table 8: Fetal Outcome with Respect to Gestational Age

Outcome	<34 Weeks	%	35–37 Weeks	%	38–40 Weeks	%
Live births healthy after one week	28	50.9%	29	72%	46	85%
IUD	23	41.81%	8	20.9%	8	14.81%
Early neonatal death (NICU)	4	7.27%	3	7.5%	1	1.86%

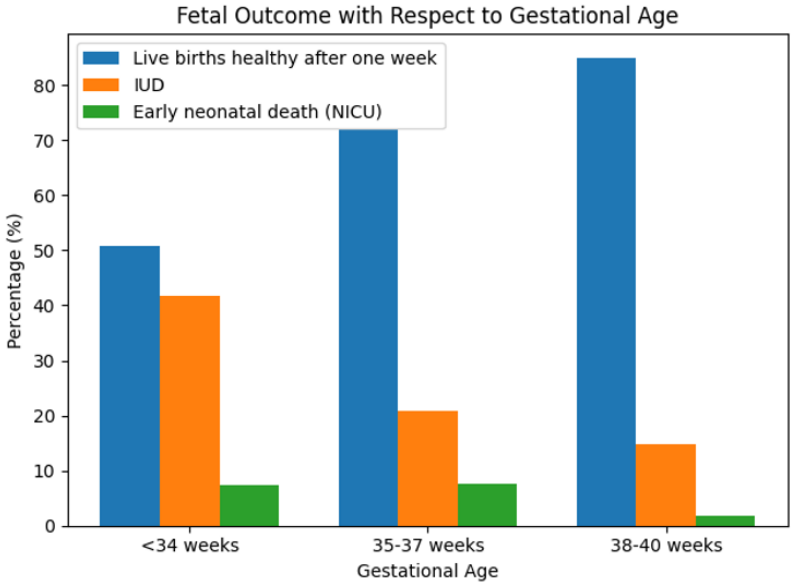

Figure 8: Fetal outcome with respect to gestational age

Table 9: Age Incidence of Placenta Previa

Age Group (years)	No. of Cases	Percentage (%)
<20	7	4.66%
20–25	39	26%
26–30	59	39.33%
31–35	33	22%
>36	12	8%

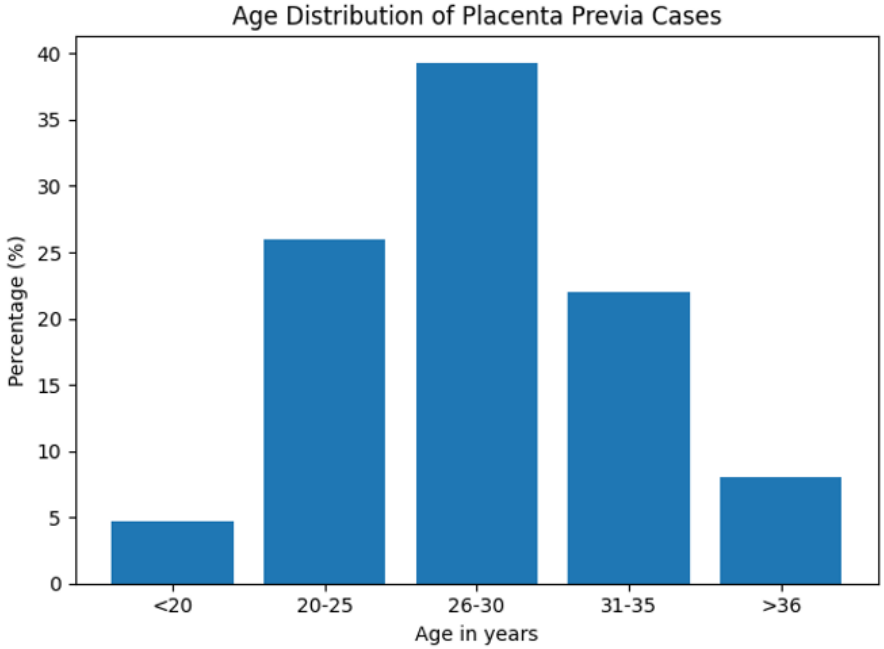

Figure 9: Age distribution of placenta Previa cases

Table 10: Distribution of Placenta Previa with No Bleeding

Type of Placenta Previa	No. of Cases	Percentage (%)
Grade I	4	40%
Grade II (a & p)	3	30%
Grade III	3	30%
Grade IV	3	30%

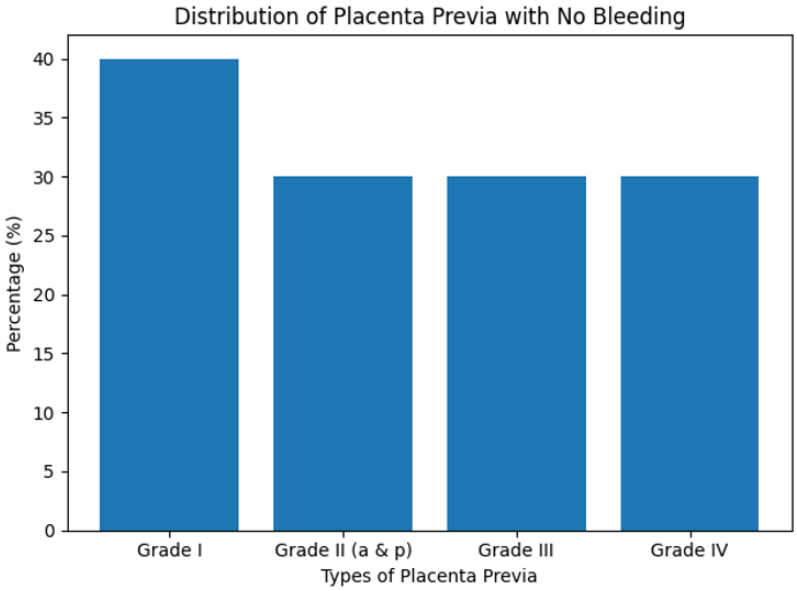

Figure 10: Distribution of placenta Previa with no bleeding

Discussion

Placenta previa is a serious obstetric issue linked to considerable maternal and neonatal hazards. The current investigation revealed the highest frequency among women aged 26–30 years (39.33%), suggesting that the disorder is more prevalent in the peak reproductive age demographic. An evident correlation was observed with escalating gravidity, with the predominant cases arising in individuals with three or more pregnancies, indicating that many gestations may lead to atypical placental implantation [5]. Prior uterine interventions were recognised as significant risk factors, with 65.33% of cases exhibiting a history of surgical operations or endometrial damage, and a considerable percentage having undergone a previous caesarean section [6].

The gestational age at admission predominantly ranged from 33 to 36 weeks, indicating that placenta previa typically manifests with bleeding during the third trimester. Continuous haemorrhage was the predominant clinical manifestation, especially in advanced stages (Grade III & IV), where severe bleeding was more pronounced. The manner of delivery had a direct correlation with the severity of placenta previa, characterised by escalating incidence of caesarean section and diminished probability of vaginal delivery in advanced grades; caesarean hysterectomy was necessitated solely in severe instances [7].

Foetal outcomes enhanced with increasing gestational age, resulting in elevated rates of healthy live deliveries at term and diminished occurrences of intrauterine death and neonatal problems. Nevertheless, negative outcomes persisted significantly, primarily because to preterm and haemorrhage. A minor percentage of instances manifested without haemorrhaging, predominantly in lower grades. The findings underscore the significance of previous uterine injury and increased parity in the aetiology of placenta previa, while also stressing the necessity for early diagnosis, meticulous surveillance, and prompt intervention to enhance maternal and foetal outcomes [8].

Conclusion

Placenta previa is strongly correlated with elevated gravidity and previous uterine procedures, especially caesarean deliveries. It typically manifests in the third trimester with variable intensities of haemorrhage, which correlates with the severity of the illness. Elevated grades are associated with a rise in surgical deliveries and adverse mother and foetal outcomes. Nonetheless, positive foetal outcomes enhance with increasing gestational age. Prompt detection, consistent prenatal surveillance, and timely obstetric intervention are crucial to mitigate problems and enhance both maternal and new-born outcomes.

References

1. Kumari U, Naniwal A, Rani V, Chandat R, Yadav S, Pipal DK. A Study of Clinical Characteristics, Demographic Characteristics, and Fetomaternal Outcomes in Cases of Placenta Previa: An Experience of a Tertiary Care Center. Cureus. 2022;14(12):1–10.
2. Solanki V, Patel E. A study of feto-maternal outcomes in cases of placenta previa admitted to labour room in a tertiary health care centre in South Gujarat. Int J Clin Obstet Gynaecol. 2024;8(6):29–31.
3. Kulsum, Akhtar N, Parveen T, Qumruzzaman K, Wahid F, Islam N, Begum Z KS. Study Of Fetomaternal Outcome in Cases of Placenta Previa at Tertiary Care Hospital, Dhaka, Bangladesh. Obs Gyne Rev - J Obstet Gynecol. 2024;10(1):32–9.
4. Mondal B, Bhattacharyya PS, Ghosh S, Koli D. Prospective Observational Study of Risk Factors and Fetomaternal Outcome of Placenta Previa in a Tertiary Care Center. J Contemp Clin Pract. 2025;11(8):125–31.
5. Dwivedi S, Verma K, Jahan U, Malhotra V, Gupta S. Implications of placenta previa on pregnancy outcome : A prospective study. ndian J Obstet Gynecol Res. 2018;5(1):93–7.
6. Priya S, Nisha S, Dwivedi LS. An Analytical Study of Maternal and Neonatal Outcomes in Placenta Pre- via Cases Presenting in the Labour Room. Int J Pharm Qual Assur. 2025;16(2):504–10.
7. Pravallika BP, Rao B, Kakariya B, Chaudhari A. Placenta previa : maternal and fetal outcome in a tertiary care institute. Int J Reprod Contraception, Obstet Gynecol. 2025; 14(3):892–5.
8. Kunte AM, Jadhav VM. A study of fetomaternal outcome in placenta previa in tertiary care centre, Sangli. MedPulse Int J Gynaecol. 2021;18(1):5–8.