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Placenta Previa: Case Report

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KEYWORDS
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ABSTRACT
Placenta previa is a significant obstetric complication that occurs during pregnancy, characterized by abnormal implantation of the placenta in the lower uterine segment. Risk factors for having had a previous caesarean section, multiple pregnancies, advanced maternal age, or having a history of uterine surgery at higher risk, a history of previous uterine curettage, may increase the likelihood of placenta previa. woman aged 29 years G3P2A0 38 weeks pregnant came with complaints of fresh blood coming out of the birth canal since 3 hours before entering the hospital about half of the pads. Previous history to an obstetrician with malpositioned ultrasound results and a history of 2 previous deliveries by cesarean section. Physical examination, blood pressure 110/70, pulse 78 times/minute, respiration 18 times/minute, temperature 360C, there was no clinical anemia, obstetric examination of the height of the uterine fundus (TFU) 33 cm with an estimated fetal weight (TBJ) 3100 gr, FHR 152 times/minute regularly, positive His 1-2 times/10 minutes 10-15 seconds each. From vaginal positive spots, no active bleeding, vaginal touch was not done. Ultrasound of the fetus in cephalic presentation, positive FHB, EFW 3100 gr, placenta corpus posterior closing OUI grade 3 SDP 6 cm PAI score 2 positive hypoechoic zone, negative lacuna, KTG category 1. From investigations, Hb was 10.2 gr/dl. Ht 30%, leukocytes 12,950 uL, platelets 322,000 uL, bleeding time and clotting time within normal limits. management carried out strict vital signs monitoring, planned sectio caesaria cito and given premedication injection of ceftriaxone 2gr and 250cc PRC blood supply. Placenta previa is a complex obstetric condition that requires careful diagnosis, monitoring and management. Prompt recognition of the condition, close monitoring of maternal and fetal safety, and timely intervention, such as cesarean section when indicated, are critical to reducing the risks associated with placenta previa.

Introduction

Placenta previa is a significant obstetric complication characterized by the abnormal implantation of the placenta in the lower uterine segment, potentially causing severe complications for both the mother and the baby (Badr et al., 2020; Jansen et al., 2020; Turkuman et al., 2022). It is categorized into several types—total, partial, marginal, and low-lying placenta—based on the degree

of placental coverage over the cervical os. This condition has been extensively studied in recent years, particularly in high-risk populations. Research by Bachmann et al. (2023) highlights that early detection and management strategies can mitigate the life-threatening risks associated with placenta previa, while Jauniaux et al. (2019) propose advanced diagnostic methods for placenta accreta spectrum disorders, which often overlap with placenta previa cases.

Several risk factors for placenta previa have been consistently identified in the literature. Studies such as Kassem and Alzahrani (2013) and Rao et al. (2021) emphasize the roles of advanced maternal age, prior cesarean sections, and uterine surgeries in predisposing women to this condition. Furthermore, Senkoro et al. (2017) explored its prevalence and risk factors in a Tanzanian cohort, underlining the role of limited prenatal care in low-resource settings.

Despite these advances, gaps remain in understanding the optimal strategies for managing placenta previa in patients with multiple high-risk factors, such as those with recurrent cesarean sections. While prior studies (Kietpeerakool et al., 2019) have examined outcomes in such cases, there is limited focus on individualized management plans that account for both maternal and fetal well-being.

The exact cause of placenta previa is still unclear, but certain risk factors have been identified. Women who have had a previous caesarean section, twin pregnancies, are of advanced maternal age, or have a history of uterine surgery are at increased risk. Smoking, a history of previous uterine curettage, and certain assisted reproductive technologies can also increase the chance of placenta previa.

The diagnosis of placenta previa is usually made via ultrasound imaging, which allows visualization of the location of the placenta and assessment of its proximity to the cervix. Routine prenatal care and comprehensive ultrasound examinations are essential to identify placenta previa and monitor its development throughout pregnancy.

The management of placenta previa depends on several factors, including the severity of symptoms, gestational age, maternal condition, and fetal safety. In cases of placenta previa, especially when it is associated with active bleeding or signs of fetal compromise, timely intervention is essential. The recommended mode of delivery is usually a cesarean section to minimize the risk of bleeding during vaginal delivery.

This case report contributes to the existing body of knowledge by addressing the management of placenta previa in a patient with a history of multiple cesarean sections, highlighting the integration of modern imaging techniques, risk stratification, and timely surgical interventions. The novelty of this study lies in its focus on multidisciplinary management strategies that prioritize maternal and fetal outcomes in complex cases.

Research Methods

Case Report

Female patient aged 29 years G3P2A0 38 weeks pregnant came with complaints of fresh blood coming out of the birth canal since 3 hours before entering the hospital about half of the pads. History of the control patient 3 days earlier to the obstetrician with malpositioned ultrasound results and planned cesarean section 1 week later history of 2 previous deliveries by cesarean section, history of ANC at regular midwives. On physical examination, blood pressure was 110/70, pulse 78 times/minute, respiration 18 times/minute, temperature 360C, general physical examination

showed no clinical anemia, obstetric examination of uterine fundal height (TFU) 33 cm with estimated fetal weight (TBJ) 3100 gr, FHR 152 times/minute regularly, His positive 1-2 times/10 minutes 10-15 seconds each. From vaginal positive spots, no active bleeding, vaginal touch was not done. Ultrasound of the fetus in cephalic presentation was performed, positive FHB, EFW 3100 gr, placenta corpus posterior closed OUI grade 3 SDP 6 cm PAI score 2 positive hypoechoic zone, negative lacuna, KTG category 1. From investigations obtained Hb 10.2 gr/dl, Ht 30%, leukocytes 12,950 uL, platelets 322,000 uL, bleeding time and clotting time within normal limits. After physical and supporting examinations, the management was carried out by monitoring strict vital signs, terminating the cesarean section immediately and being given premedication for injection of ceftriaxone 2gr and a 250cc PRC for back up.

Results and Discussion

Placenta previa is a condition characterized by abnormal implantation of the placenta in the lower uterine segment, often leading to significant maternal and fetal risks such as severe bleeding, preterm delivery, and fetal distress. In this case, the patient presented with fresh vaginal bleeding at 38 weeks of gestation, a common symptom of placenta previa. This symptom aligns with findings by Cunningham et al. (2014), who identified vaginal bleeding as the hallmark clinical feature of this condition.

The patient's history of two previous cesarean sections placed her at higher risk for placenta previa, as supported by Kassem and Alzahrani (2013), who reported a strong association between uterine scars from prior surgeries and abnormal placental implantation. The ultrasound findings in this case revealed a posterior placenta covering the internal cervical os, which is consistent with a Grade 3 placenta previa diagnosis. Studies by Jauniaux et al. (2019) and Bachmann et al. (2023) emphasize the importance of detailed imaging to confirm the diagnosis and plan appropriate management.

Laboratory findings showed mild anemia (hemoglobin 10.2 g/dL, hematocrit 30%), a common occurrence in patients with placenta previa due to chronic blood loss, as noted by Salim and Satti (2021). The normal leukocyte and platelet counts indicated no evidence of infection or coagulopathy, which is crucial for surgical safety.

Management in this case included close monitoring of vital signs, premedication with ceftriaxone to prevent infection, and blood preparation for potential transfusion. These interventions are consistent with guidelines described by Resnik et al. (2019), which recommend a multidisciplinary approach to ensure maternal and fetal safety in placenta previa cases. The decision to perform a cesarean section aligns with recommendations by Zlatnik et al.. (2010), who argue that early delivery minimizes risks associated with continued pregnancy in placenta previa patients.

A noteworthy finding in this case was the presence of a hypoechoic zone on ultrasound, suggestive of a subchorionic hematoma. Rao et al. (2021) highlighted that such hematomas increase the risk of adverse outcomes, including preterm labor and placental abruption. Although this patient's condition was stable at admission, the potential for rapid deterioration necessitated immediate surgical intervention.

The patient's successful delivery via cesarean section underscores the importance of timely decision-making in managing placenta previa. The availability of blood products and strict monitoring

contributed to preventing complications. This case highlights the necessity of individualized care plans based on risk factors and clinical findings, as emphasized by Kietpeerakool et al. (2019).

In conclusion, this case exemplifies the complex interplay of risk factors, diagnostic challenges, and management strategies in placenta previa. Incorporating evidence-based practices, such as those outlined by Callahan and Caughey (2018), ensures optimal outcomes for both mother and baby. Further research on advanced imaging techniques and preventive strategies could enhance care for patients with placenta previa.

Conclusion

Placenta previa is a complex obstetric condition that requires careful diagnosis, monitoring and management. Prompt recognition of the condition, close monitoring of maternal and fetal safety, and timely intervention, such as cesarean section when indicated, are critical to reducing the risks associated with placenta previa. A multidisciplinary approach and effective communication among healthcare providers are essential to ensure the best outcomes for mothers and their babies. Further research and advances in prenatal imaging techniques may contribute to improving the understanding, prevention, and future management of placenta previa.

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