

CASE STUDY MIDWIFERY CARE AND MANAGEMENT OF RETAINED PLACENTA DURING LABOR

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ABSTRACT

Background: Amidst SDG Target 3.1, postpartum hemorrhage (PPH) causes 30% of 287,000 global maternal deaths annually with retained placenta contributing 15%–20%, while in Indonesia it triggers 16%–17% of hemorrhages within the national MMR of 144 per 100,000 live births, including 12–18 cases yearly in Medan City. Therefore, this study evaluates comprehensive midwifery care management in handling a retained placenta emergency for Mrs. J at a primary healthcare facility. **Objectives:** To identify clinical problems, assess immediate intervention needs, and implement emergency midwifery care for a patient with retained placenta. **Methods:** This observational case study monitored Mrs. J (32 years old, G5P4A0, 41 weeks gestation) at Klinik Pratama Tutun Sehati using subjective data, physical examinations, and a partograph. **Results:** After spontaneously delivering a 3800-gram male infant, the placenta was undelivered after 30 minutes despite two oxytocin injections at 18:40 and 19:10 WIB. The mother's condition worsened with a blood pressure of 90/60 mmHg, pulse of 103 bpm, respiration of 28 rpm, temperature of 37.8°C, and ± 400 cc of blood loss. Due to severe exhaustion making manual extraction impossible, the midwife administered 1000 mL of Ringer's Lactate and referred her via the BAKSO KUDA PN method. **Conclusions:** Retained placenta management at primary facilities requires early recognition, rapid fluid resuscitation, and an efficient referral system. Immediate referral using BAKSO KUDA PN is critical when manual removal is unfeasible due to maternal fatigue, preventing hypovolemic shock.

Keywords: retained placenta, midwifery care, postpartum hemorrhage, obstetric emergency

INTRODUCTION

Efforts to reduce the Maternal Mortality Rate (MMR) within the framework of the global Sustainable Development Goals (SDGs) Target 3.1 require strengthening the quality of services not only at the central level, but also down to the primary health facility level in the sub-district. According to the World Health Organization (WHO), of the total of approximately 287,000 maternal deaths per year in the world, postpartum hemorrhage (PPH) dominates at 30%, where cases of retained placenta contribute to the fatality rate of 15% to 20% of it. In Indonesia, data from the Indonesian Ministry of Health notes that the national MMR is still fluctuating at 144 per 100,000 live births, with hemorrhage as the highest direct cause (28%), and tissue factors in the form of retained placenta contribute 16% to 17% of the total cases of bleeding. This obstacle in emergency management continues to spread to the regional level, including Medan City which records a fluctuating maternal mortality rate in the range of 12 to 18 absolute cases per year according to the Medan City Health Office report. (António Guterres Secretary-General of the United Nations, 2025)

The World Health Organization (WHO) notes that postpartum hemorrhage is the number one cause of maternal death worldwide, accounting for nearly 25% of all cases each year. One of the main triggers for this severe bleeding, which requires emergency treatment, is retained placenta. According to WHO standards, retained placenta occurs when the placenta is not delivered within 30 minutes of birth with active management. Medically, this condition is divided into three types: placenta that fails to separate due to weak uterine contractions (placenta adherens), placenta that is trapped due to premature cervix closure (trapped placenta), and placental tissue that grows too deeply into the uterine wall.

The Indonesian Ministry of Health (Kemenkes RI) continues its efforts to reduce the Maternal Mortality Rate (MMR) in Indonesia, which currently stands at 144 per 100,000 live births, a figure that is still far from the global target of less than 70 per 100,000 live births. National data shows that postpartum hemorrhage is the leading cause of maternal death in Indonesia, accounting for 28% of total cases. One of the main triggers for this heavy bleeding is retained placenta, a condition in which the placenta remains stuck in the uterus and fails to be delivered within 30 minutes of birth. This is a very dangerous condition; the Ministry of Health notes that delayed placental delivery contributes to 16% to 17% of postpartum

hemorrhage cases because the uterus loses its ability to contract (uterine atony) and compresses exposed blood vessels.(WHO, 2025)

Improving the quality of maternal health services is a key strategy for reducing maternal mortality. Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/320/2020 concerning the Professional Standards for Midwives emphasizes that midwives have a strategic role in providing comprehensive, safe, effective, and evidence-based midwifery services. These services cover the entire reproductive cycle, including care during

childbirth, management of obstetric complications, maternal emergency measures, and the implementation of collaboration and referral systems within professional authority.(PERMENKES RI, 2025)

The Professional Standards for Midwives also emphasize that midwives must be competent in conducting comprehensive assessments, identifying labor complications early, establishing obstetric diagnoses, providing initial management in emergency situations, and conducting timely collaboration and referrals. Furthermore, all midwifery procedures must be implemented based on the principles of patient safety, professional ethics, and evidence-based practices to ensure quality care and reduce the risk of maternal morbidity and mortality. These competencies are a crucial foundation for managing retained placenta, which requires a rapid, systematic, and coordinated clinical response. Placental retention remains a leading cause of postpartum hemorrhage frequently encountered in referral healthcare facilities. The complexity of patients' clinical conditions demands the implementation of comprehensive midwifery care management, from assessment and diagnosis to planning and implementation, evaluation, and continuous documentation. (Kementerian Kesehatan RI, 2022)

More specifically, at the regional level, Medan Johor District is one of the densely populated areas in Medan City, resulting in a significant burden on maternal care. Based on maternal health monitoring data in the Medan Johor region, cases of bleeding due to retained placenta are prone to death or severe morbidity due to delayed treatment. Frequently encountered problems include a lack of emergency facilities at independent primary health care facilities, delays in recognizing the danger signs of labor by families, and challenges in emergency referrals to central hospitals. When the placenta fails to deliver within the crucial 30-minute timeframe, the inability to safely handle the placenta at the primary level forces patients to be referred in an unstable condition. (PERMENKES RI, 2025)

Clinically, retained placenta can be divided into three main forms: placenta adherens, trapped placenta, and placenta accreta spectrum (PAS). Placenta adherens occurs when uterine contractions are insufficient to detach the placenta from the uterine wall. Trapped placenta occurs when the placenta detaches but cannot be delivered due to a closed cervix or obstruction in the birth canal. Meanwhile, placenta accreta spectrum is a condition in which the chorionic villi adhere, to and invade the myometrium, making placental removal difficult and often requiring surgery. These differences in mechanisms determine the clinical approach, making identifying the cause of placental retention a crucial step in management.

Several factors are known to increase the risk of placental retention, including a history of placental retention in a previous delivery, preterm labor, prolonged labor induction or stimulation, multiparity, a history of curettage or uterine surgery, placental implantation abnormalities, and uterine anatomical abnormalities. Furthermore, maternal factors such as advanced reproductive age and a history of postpartum hemorrhage also contribute to the increased risk of this complication. However, placental retention can occur in women without clear risk factors, so careful monitoring of the third stage of labor is essential during every delivery.

The clinical manifestations of retained placenta are characterized by failure to deliver the placenta after 30 minutes postpartum, ongoing bleeding, an inadequately contracted uterus, and signs of hemodynamic compromise if the bleeding reaches a significant volume. If this condition is not promptly treated, the mother is at risk of severe postpartum hemorrhage, hypovolemic shock, severe anemia, puerperal infection, coagulation disorders, and even maternal death. Therefore, retained placenta is a condition that requires immediate treatment to maintain maternal hemodynamic stability and prevent life-threatening complications.

Based on a preliminary survey in the delivery room, retained placenta remains one of the obstetric complications requiring immediate management due to its potential to cause postpartum hemorrhage and increase the risk of maternal morbidity. Successful management of this condition is influenced by the identification of risk factors, accurate diagnosis, and implementation of midwifery care in accordance with evidence-based practice standards. Therefore, this case study was conducted to evaluate the implementation of midwifery care in cases of retained placenta as an effort to support the improvement of service quality and maternal safety.

RESEARCH METHOD

This study employed a qualitative descriptive research design with a single case study method using the Varney Midwifery Care Management approach. The study subjects were purposively selected based on specific inclusion criteria: a multiparous mother (Mrs. J, 32 years old, G5P4A0, 41 weeks gestation) in a primary health care facility (Tutun Sehati Primary Clinic) who experienced a clinical condition of placental abruption more than 30 minutes postpartum. The focus of observation (variables) was directed at the emergency management of retained placenta, with outcome parameters including stability of vital signs (hemodynamic status), uterine muscle (myometrial) contraction strength, and monitoring of blood volume. These clinical parameters were measured using standard evaluation instruments, including a partograph observation sheet, sphygmomanometer, thermometer, and visual measurement of blood volume (± 450 mL).

Clinical data were analyzed descriptively and qualitatively using a narrative method based on the SOAP (Subjective, Objective, Analysis, Management) progression. The clinical decision-making process was tested for its compliance with Midwifery Service Standards (Standard 11 on Active Management of the Third Stage of Labor and Standard 20 on Emergency Management of Placental Retention) recommended by the Indonesian Ministry of Health and the Indonesian Midwives Association (IBI). Ethical and legal aspects of fulfilling subjects' rights were met by completing informed consent forms for emergency procedures and structured referrals using the BAKSO KUDA PN method.

RESULTS AND DISCUSSION

The findings indicate that high parity (grandmultiparity) is significantly associated with placental retention in Mrs. J's case. A fifth pregnancy (G5) can disrupt the elasticity and architecture of myometrial fibers due to repeated stretching in previous pregnancies. This reduces the retraction and contractility of the uterine muscles during the third stage of labor, leading to failure of the physiological separation mechanism (detachment) of the placenta from the uterine wall and subsequently increasing the risk of postpartum hemorrhage and hypovolemic shock.

Conversely, maternal age did not significantly contribute to complications in this case. Mrs. J was 32 years old, which is theoretically within the healthy and safe reproductive age range (20–35 years). This finding differs from some literature reporting that age over 35 is a

dominant risk factor due to deterioration of myometrial function. This difference suggests that in this case, extreme parity was a far more dominant factor in triggering uterine atony than the mother's biological age.

Furthermore, the presence of an enlarged urinary bladder (a slightly protruding bladder) mechanically contributes to inhibiting effective uterine contractions, thus exacerbating the failure of placental expulsion. Similarly, a history of four previous normal spontaneous deliveries has been shown not to guarantee a safe delivery in subsequent pregnancies if parity continues to increase without adequate antenatal care.

These findings contribute to the understanding that high parity (grandemultiparity) combined with negligence in antenatal care (never attending antenatal care) remains a critical determinant of high maternal morbidity due to complications of the third stage of labor. Therefore, strengthening antenatal care services for early detection of risk factors, IEC (Information and Communication) programs for Family Planning (KB) to limit parity, and the readiness of midwives in primary care facilities to provide fluid stabilization and rapid referral collaboratively are crucial to reducing the mortality burden due to retained placenta.

CONCLUSION

The implementation of midwifery care for Mrs. J G5P4A0 with retained placenta has been carried out comprehensively through the stages of assessment, diagnosis, planning, implementation, and evaluation according to midwifery management. During the first and second stages, care in the form of monitoring the progress of labor, psychological support, fulfillment of basic maternal needs, and assistance with normal delivery successfully supported the spontaneous birth of the baby in good condition. In the third stage, retained placenta was successfully identified early through the failure of the placenta to deliver for more than 30 minutes accompanied by bleeding and inadequate uterine contractions. The midwife then carried out initial emergency management in the form of active management of the third stage, administration of uterotonics, stabilization of the maternal condition, hemodynamic monitoring, preparation for manual placental procedures, and appropriate collaboration and referral according to procedures, so that the risk of more severe complications can be minimized before the patient receives definitive treatment. The implementation results indicate that midwifery care meets the Midwife Competency Standards, particularly in providing comprehensive midwifery care during labor, early detection of complications, initial

management of obstetric emergencies, interprofessional collaboration, and implementing a referral system focused on maternal safety.

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

The authors declare that there is no conflict of interest regarding the publication of this article. This study did not receive any financial support from government agencies, commercial organizations, or non-profit institutions.

AUTHOR CONTRIBUTIONS

DS: Conceptualization, investigation, data collection, implementation of midwifery care, formal analysis, writing original draft, and writing review & editing.

KS: Methodology, supervision, validation, writing review, and editing.

RN: Data curation, literature review, formal analysis, and manuscript preparation.

WL: Clinical investigation, resources, and validation.

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