

Midwifery Care for Pregnant Women with Late-Term Pregnancy and Oligohydramnios

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Abstract:

Late-term pregnancy is defined as a pregnancy that has reached 41 weeks and 6 days or more, which includes the risk of oligohydramnios. Proper management of late-term pregnancy is essential through labor induction to reduce the risks of morbidity and mortality. This study aims to analyze Midwifery care for pregnant women with late-term pregnancy and oligohydramnios. This study utilized a case study methodology with a thorough midwifery care approach for one patient. Data collection involved interviews, observations, physical assessments, and documentation reviews. The data were analyzed following the midwifery process steps: assessment, diagnosis, intervention, implementation, and evaluation. The case study was conducted with Mrs. R, who showed no signs of labor. A diagnosis was made of G3P2OO3 at a gestational age of 41-42 weeks, characterized by late-term pregnancy and intrauterine live fetal oligohydramnios. The intervention involved referring the patient to the hospital for labor induction. The evaluation revealed that the cesarean section was successful, and both the mother and baby were healthy after the delivery. This case highlights the significance of early detection and sound decision-making in managing overdue pregnancies to mitigate the risks of complications for both mother and newborn.

Article info:

Submitted:
08-06-2025
Revised:
24-07-2025
Accepted:
07-08-2025

Keywords:

late term, postterm, postdate, oligohydramnios, labor induction

DOI: <https://doi.org/10.53713/htechj.v3i5.373>

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INTRODUCTION

Post-term deliveries remain relatively common (up to 5-10%) even in developed nations (Jenabi et al., 2023). The likelihood of perinatal adverse outcomes rises gradually after 40 weeks of gestation and increases significantly after 42 weeks. The chance of stillbirth is noted to increase following 42 weeks of pregnancy, and globally, roughly 14% of stillbirths are linked to prolonged pregnancies (Wennerholm et al., 2019).

The occurrence of late pregnancies varies by nation, with a review of randomized clinical trials in industrialized, low-income, and middle-income countries indicating incidences from 3% to 14%. In Europe, research conducted across 13 countries found the incidence of late pregnancies to range from 0.5% to 10% (Mitao et al., 2023). In Indonesia, approximately 10% of pregnancies are reported to be overdue (Defrin et al., 2019).

A post-term pregnancy is defined as one that extends to 42 weeks (294 days) or longer, determined from the first day of the last menstrual period in a typical menstrual cycle (Maheshwari et al., 2021). A gestational age of 41 weeks is classified as overdue and necessitates careful observation because of the heightened risk of complications. Having a pregnancy that extends beyond the due date can lead to various complications. These complications may affect the fetus,

resulting in issues such as aspiration, macrosomia, fetal distress, oligohydramnios, meconium problems, and even fetal demise. For the mother, complications can heighten anxiety, lead to ineffective labor, necessitate surgical delivery, and cause perineal injury as a result of macrosomia (Latif & Aiken, 2024).

The precise reason for postterm pregnancy remains unclear. A potential factor contributing to postterm pregnancy is hormonal, as progesterone levels that do not promptly decline at term gestation can influence the uterus's responsiveness to reduced levels of the hormone oxytocin. Factors that increase the risk of postterm pregnancy include the number of previous births, maternal age, occupation, educational background, and the mother's health conditions (Fayed et al., 2022).

In postterm pregnancies, the risk of umbilical cord compression rises, which can result in intrauterine fetal hypoxia, ultimately affecting the fetus's circulation and oxygen supply. Amniotic fluid levels reach their highest point of around 1000 mL between 34 and 36 weeks of gestation, gradually declining. Furthermore, in postterm pregnancies, amniotic fluid may be absorbed back into the mother's body, developing oligohydramnios (Huri et al., 2023).

Oligohydramnios refers to a condition characterized by a decrease in amniotic fluid volume. The normal volume is approximately 500 mL, and the typical range for the amniotic fluid index is between 5 and 25 cm (Iskandar & Kamila, 2023). Oligohydramnios in pregnant women raises the likelihood of inducing labor and performing cesarean deliveries, resulting in complications like infection, hemorrhage, and issues with the birth canal. Additionally, the fetus may experience deformities and cord compression, which can lead to fetal distress and potentially result in intrauterine fetal demise (Sharon et al., 2021).

Managing labor in postterm pregnancies involves meeting the criteria for labor induction. There are two approaches to induce labor: mechanical methods that utilize hygroscopic dilators (such as laminaria) and balloon catheters, and pharmacological methods that employ uterotonics like oxytocin and prostaglandins (Fatmawati et al., 2024). The likelihood of complications for both the mother and fetus escalates during the third trimester, and the chances of adverse pregnancy outcomes rise at 41+6 weeks of gestation. Consequently, it is advised to induce labor for pregnancies that surpass 41 weeks of gestation without the onset of spontaneous labor (Yang et al., 2023).

STUDY DESIGN

This qualitative case study employed a comprehensive midwifery care approach to examine the management of a single patient, Mrs. R, who presented with no signs of labor at 41–42 weeks of gestation. The study was guided by the midwifery process framework, which includes five iterative phases: assessment, diagnosis, intervention, implementation, and evaluation. Data collection was conducted through multiple sources, including in-depth interviews with the patient, direct observations of clinical interactions, physical examinations, and reviews of medical records. The primary focus was on understanding the clinical decision-making process and care strategies tailored to address late-term pregnancy complicated by intrauterine live fetal oligohydramnios in a gravida 3 para 2 (G3P2O03) patient.

Data analysis followed the sequential steps of the midwifery process. Demographic, clinical, and psychosocial data were synthesized during the assessment phase to establish baseline health status. Diagnoses were formulated using clinical guidelines, including confirmation of gestational age via ultrasound records. Interventions were designed to prioritize maternal and fetal well-being, incorporating evidence-based practices such as fetal monitoring, hydration therapy, and patient education. Implementation details, including adherence to protocols and patient responses, were

documented. Finally, outcomes were evaluated through follow-up assessments of maternal satisfaction, fetal status, and labor progression.

Ethical approval was obtained from the Health Polytechnic of the Ministry of Health, Malang. Informed consent was secured from Mrs. R, ensuring confidentiality and voluntary participation. The data were anonymized, and the study adhered to the guidelines of the Declaration of Helsinki. Rigor was maintained through triangulation of data sources, peer debriefing, and member checking to validate findings. This approach enabled a holistic understanding of midwifery care delivery in managing late-term pregnancy complications while upholding ethical and methodological integrity.

PATIENT INFORMATION

This study employs the case study approach. This midwifery care focuses on labor beyond the expected date, accompanied by low amniotic fluid levels. Data collection involves interviewing the mother and her family for precise information and performing a physical examination. Observations are made to assess the client's health condition, alongside providing counseling and midwifery care to Mrs. R, following the format for childbirth care.

This case study focuses on Mrs. R, a 33-year-old woman in her third pregnancy (G3P2003), who has a gestational age of 41 to 42 weeks. The assessment findings indicate that the obstetric issues identified in this case include a post-term pregnancy with oligohydramnios. The researchers aim to present the study findings in accordance with the stages of the midwifery process. According to the comprehensive results obtained, the subjective data show that the mother has not experienced any signs of labor. Objective data revealed the following: weight (BW) of 67 kg, height (TB) of 154 cm, vital signs (blood pressure: 126/79 mmHg, respiratory rate: 19 breaths per minute, pulse: 92 beats per minute), fundal height (TFU) of 30 cm, fetal heart rate (DJJ) at 145 beats per minute (regular), head presentation, absence of uterine contractions, and an internal examination that shows no cervical dilation; the ultrasound findings confirm the presence of oligohydramnios. From the analysis of the collected data, the obstetric diagnosis is determined to be G3P2003, at 41-42 weeks of gestation, with a post-term intrauterine live singleton fetus accompanied by oligohydramnios. The intervention taken included referring the patient to the hospital for labor induction.

CLINICAL FINDINGS

The assessment revealed that Mrs. R had a standard delivery with induction on February 19, 2025. The mother's overall health is good, with a clear state of consciousness, blood pressure of 110/70 mmHg, a pulse of 82 beats per minute, a respiratory rate of 18 breaths per minute, and a temperature of 36.5°C. The newborn's condition was also favorable, exhibiting strong crying and a healthy complexion with an APGAR score of 9-10, a birth weight of 3,100 grams, a length of 51 cm, and a head circumference of 33 cm. During the postpartum check on the third day (February 21, 2025), her general health remained good, with a clear state of consciousness, blood pressure at 110/70 mmHg, a pulse of 92 beats per minute, a respiratory rate of 20 breaths per minute, and a temperature of 36.7°C. There were no signs of infection at the suture site, the bladder was empty, and the fundal height was two fingers below the center, with lochia rubra present. The neonate's visit on the third day showed a good general condition, with a body weight of 3,100 grams and a length of 51 cm.

DISCUSSION

Perinatal morbidity and mortality rates rise as gestational age surpasses the estimated delivery date, and prolonged pregnancies are linked to a higher occurrence of meconium presence and meconium aspiration syndrome, Apgar scores below four at 5 minutes, oligohydramnios, fetal macrosomia, post-maturity syndrome, and a notable increase in the incidence of intrauterine fetal death (IUFD). To reduce or avert these possible complications, routine prenatal monitoring is advised, particularly after 41 weeks of gestation, followed by the induction of labor (Blecher et al., 2022).

Initiating labor at 41 weeks of gestation is advised in several countries to avoid prolonged pregnancies, a minor yet escalating occurrence of overdue deliveries, and associated perinatal complications (Pallavee & Vishalakshi, 2023). The management approach for postterm pregnancy involves monitoring fetal health during extended gestation, initiating labor when necessary, and ensuring proper oversight during labor. Overdue pregnancies can lead to maternal and fetal complications. Studies have shown that pregnancies that exceed the estimated delivery date carry a heightened risk of oligohydramnios, meconium-stained amniotic fluid, macrosomia, fetal postmaturity syndrome, and the need for cesarean delivery, which pose risks to both the infant and the mother (Singh et al., 2020).

Postterm pregnancies necessitate prompt identification and careful planning for assessment and potential termination. It is crucial to avoid allowing pregnancies to extend into postterm stages due to the significant link between perinatal fatalities and maternal health risks (Al-Genedy & Qushash, 2024). The reasons for inducing labor are both maternal and fetal. They can include conditions such as preeclampsia, diabetes, oligohydramnios, intrauterine growth restriction, premature rupture of membranes, and pregnancies that extend beyond 41 weeks of gestation (Alkmark et al., 2021).

Labor is the process of delivering a fully developed fetus through the birth canal, whether assisted or unassisted. A notable indicator of labor is the dilation and thinning of the cervix (Malvasi et al., 2024). In this instance, 33-year-old Mrs. R experienced sporadic contractions but did not have cervical dilation, and she opted for labor induction. Many countries recommend inducing labor at 41 weeks of gestation to prevent overdue pregnancies; however, the issues related to overdue births and their associated perinatal complications continue to be a prevalent challenge globally (Tang et al., 2022).

The obstetric diagnosis for this case is G3P3003, with a gestational age of 41-42 weeks, featuring a late-term intrauterine live single fetus. A significant concern in postdate pregnancies is that the placenta may fail to facilitate the exchange of CO₂ and O₂, which increases the likelihood of asphyxia and can lead to restricted fetal growth or even intrauterine death, in addition to affecting the fetal digestive system. Amniotic fluid levels decline and may become more viscous, potentially resulting in total evaporation. In the absence of an adequate oxygen supply, the fetus might expel waste in the womb, causing the amniotic fluid to take on a slight green hue. For the mother, the consequences can include dystocia, prolonged labor, shoulder dystocia, uterine inertia, tears in the birth canal, and uterine atony (Nugroho, 2021). Managing postterm pregnancy necessitates early identification and careful planning regarding assessment and potential termination of the pregnancy. Allowing a pregnancy to reach postterm status is advised against due to its strong association with increased perinatal mortality and maternal complications (Al-Genedy & Qushash, 2024).

The recommended course of action in this situation is to refer the patient to the hospital for further treatment. The procedure conducted at the hospital involved initiating labor. The reasons for inducing labor can be related to both the mother and the fetus, including conditions like

preeclampsia, diabetes, low amniotic fluid, restricted growth in utero, early rupture of membranes, and prolonged pregnancy beyond 41 weeks (Alkmark et al., 2021). It is preferable to avoid an elective cesarean section, as this could elevate the likelihood of the newborn requiring care in the NICU compared to an approach of waiting or inducing labor (Metwali et al., 2024). Consequently, the advised strategy is to select between monitoring the situation and opting for labor induction.

The recommendation for inducing labor at 41 weeks of gestation is standard in numerous countries to avoid overdue pregnancies; however, the occurrence of overdue births and their related perinatal complications continue to be a widespread issue globally (Citra & Sofiyanti, 2023).

CONCLUSION

The situation involving Mrs. R, who is in late-term pregnancy at 41-42 weeks with oligohydramnios, highlights the necessity of implementing suitable and evidence-based interventions to mitigate potential risks to both the mother and the fetus. Managing post-term labor complicated by oligohydramnios demands prompt and effective treatment to reduce dangers for both the mother and the unborn child. Referring the patient to a more advanced healthcare facility is a highly appropriate measure, considering the constraints of managing this condition at the primary care level.

Inducing labor in the hospital demonstrates a proactive approach by healthcare professionals to accelerate the labor process and avoid additional complications like fetal distress or intrauterine growth issues. The positive outcome of a vaginal delivery in this situation showcases sound clinical decision-making and the facility's preparedness to manage high-risk deliveries. This case highlights the significance of promptly identifying post-term pregnancies with oligohydramnios, along with the necessity of an effective referral system and coordinated obstetric care. The positive results for the mother and baby demonstrate that effective teamwork between primary healthcare and referral services can lead to the best outcomes.

ACKNOWLEDGEMENT

Thank you to Mrs. R, who has been willing to receive midwifery care during pregnancy and childbirth.

CONFLICT OF INTEREST

There are no conflicts in this article.

REFERENCES

- Al-Genedy, R. A., & Qushash, E. M. (2024). Postterm Pregnancy: Maternal and Fetal Outcomes. *Electronic Journal of University of Aden for Basic and Applied Sciences*, 4(4), 384–392. <https://doi.org/10.47372/ejua-ba.2023.4.307>
- Alkmark, M., Carlsson, Y., Wendel, S. B., Elden, H., Fadl, H., Jonsson, M., Ladfors, L., Saltvedt, S., Sengpiel, V., Wessberg, A., Wikström, A. K., Hagberg, H., & Wennerholm, U. B. (2021). Efficacy and safety of oral misoprostol vs transvaginal balloon catheter for labor induction: An observational study within the SWEdish Postterm Induction Study (SWEPIs). *Acta Obstetrica et Gynecologica Scandinavica*, 100(8), 1463–1477. <https://doi.org/10.1111/aogs.14155>

- Blecher, Y., Michaan, N., Baransi, S., Baruch, Y., & Yogev, Y. (2022). Against medical advice for induction of labor due to post-term pregnancies—the impact on pregnancy outcome. *Journal of Maternal-Fetal and Neonatal Medicine*, 35(20), 3979–3983. <https://doi.org/10.1080/14767058.2020.1845645>
- Citra, T., & Sofiyanti, S. (2023). Case Report: Sexual Intercourse to Stimulate the Labor Process. *Siliwangi Health Journal*, 4(1), 496–502. <https://doi.org/10.34011/jks.v4i1.1572>
- Defrin, D., Yerizel, E., Suhaimi, D., & Afriwardi, A. (2019). The Reactivity Levels of Progesterone, Nitric Oxide and Nuclear Factor Kappa-B on the Serum of Term and Post-Term Pregnancy, Clinical Study in Padang, West Sumatera, Indonesia. *Open Access Macedonian Journal of Medical Sciences*, 7(11), 1729–1732. <https://doi.org/10.3889/oamjms.2019.351>
- Fatmawati, Ratna Mildawati, Yuneka Saristiana, Fendy Prasetyawan, & Faisal Akhmal Muslikh. (2024). Evaluation of the Effectiveness of Uterotonika Misoprostol Use in Induction of Labor in Postterm Pregnancy. *Journal of Informatics and Health*, 1(1), 19–33. <https://doi.org/10.35473/ikn.v1i1.3023>
- Fayed, A., Wahabi, H. A., Esmaeil, S., Elmorshedy, H., & AlAniezy, H. (2022). Preterm, early term, and post-term infants from Riyadh mother and baby multicenter cohort study: The cohort profile. *Frontiers in Public Health*, 10, 928037. <https://doi.org/10.3389/fpubh.2022.928037>
- Huri, M., Di Tommaso, M., & Seravalli, V. (2023). Amniotic Fluid Disorders: From Prenatal Management to Neonatal Outcomes. *Children*, 10(3), 561. <https://doi.org/10.3390/children10030561>
- Iskandar, I., & Kamila, A. (2023). Oligohidramnion. *Galenical: Malikussaleh Student Journal of Medicine and Health*, 2(3), 67. <https://doi.org/10.29103/jkmm.v2i3.8715>
- Jenabi, E., Farashi, S., Salehi, A. M., & Parsapoor, H. (2023). The association between post-term births and autism spectrum disorders: an updated systematic review and meta-analysis. *European Journal of Medical Research*, 28(1), 1–10. <https://doi.org/10.1186/s40001-023-01304-2>
- Latif, S., & Aiken, C. (2024). Prolonged pregnancy: Balancing risks and interventions for post-term gestations. *Obstetrics, Gynaecology & Reproductive Medicine*, 34(5), 127–133. <https://doi.org/10.1016/j.ogrm.2024.02.004>
- Maheshwari, S. ., Rajoria, L. ., Hemani, S. ., Kuntal, C. ., & Bansal, A. . (2021). Feto -Maternal Outcome In Post Dated Pregnancy. *International Journal of Medical and Biomedical Studies*, 5(2). <https://doi.org/10.32553/ijmbs.v5i2.1760>
- Malvasi, A., Malgieri, L. E., Stark, M., & Tinelli, A. (2024). Dystocia, Delivery, and Artificial Intelligence in Labor Management: Perspectives and Future Directions. *Journal of Clinical Medicine*, 13(21), 6410. <https://doi.org/10.3390/jcm13216410>
- Metwali, N. Y., Ahmed, R. A., Hussain Timraz, J., Irfan, H., Makarfi, S. M., Metwali, M. Y., Orfali, M. T., & Fadl, J. K. (2024). Evidence-Based Strategies to Minimize Unnecessary Primary Cesarean Sections: A Comprehensive Review. *Cureus*, 16(11), e74729. <https://doi.org/10.7759/cureus.74729>
- Mitao, M., Mwita, W. C., Antony, C., Adinan, H., Shayo, B., Amour, C., Mboya, I. B., & Mahande, M. J. (2023). Recurrence of post-term pregnancy and associated factors among women who delivered at Kilimanjaro Christian Medical Centre in northern Tanzania: A retrospective cohort study. *PLoS ONE*, 18(April 4), 1–12. <https://doi.org/10.1371/journal.pone.0282078>
- Pallavee, P., & Vishalakshi L, A. (2023). Prolonged Pregnancy. In *Labour and Delivery: An Updated Guide* (pp. 373–385). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-6145-8_27
- Sharon, N., Pekar-Zlotin, M., Kugler, N., Accart, Z., Nimrodi, M., Melcer, Y., ... Maymon, R. (2021). Oligohydramnios: how severe is severe? *The Journal of Maternal-Fetal & Neonatal Medicine*, 35(25), 5754–5760. <https://doi.org/10.1080/14767058.2021.1892068>
- Singh, N., Misra, D., & Srivastava, S. (2020). Postdated pregnancy: its maternal and fetal outcome. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 9(8), 3223. <https://doi.org/10.18203/2320-1770.ijrcog20203299>
- Tang, J., Gou, W., Fu, Y., Li, K., Guo, X., Huang, T., Liu, H., Li, D., & Zheng, J. S. (2022). Association between postterm pregnancy and adverse growth outcomes in preschool-age children. *American Journal of Clinical Nutrition*, 116(2), 482–490. <https://doi.org/10.1093/ajcn/nqac127>

- Wennerholm, U. B., Saltvedt, S., Wessberg, A., Alkmark, M., Bergh, C., Wendel, S. B., Fadl, H., Jonsson, M., Ladfors, L., Sengpiel, V., Wesström, J., Wennergren, G., Wikström, A. K., Elden, H., Stephansson, O., & Hagberg, H. (2019). Induction of labour at 41 weeks versus expectant management and induction of labour at 42 weeks (SWEdish Post-term Induction Study, SWEPIIS): Multicentre, open label, randomised, superiority trial. *The BMJ*, 367. <https://doi.org/10.1136/bmj.l6131>
- Yang, Q., Zhou, C. C., Chen, Y., Pei, J. D., Hua, X. L., & Yao, L. P. (2023). Prediction model for successful induction of labor by cervical strain elastography diagnosed at late-term pregnancy in nulliparous women: a prospective cohort study. *BMC Pregnancy and Childbirth*, 23(1), 1–9. <https://doi.org/10.1186/s12884-023-05426-7>