

Comprehensive midwifery care for a term neonate with mild asphyxia from a mother with B20 at Gambiran General Hospital, Kediri City

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Abstract:

Neonatal asphyxia is one of the leading causes of morbidity and mortality in newborns, occurring due to breathing difficulties after birth. This condition requires prompt and appropriate treatment to prevent long-term problems. This study aims to describe how to provide comprehensive midwifery care to babies born at full term with mild asphyxia from HIV-infected mothers (B20) in the Panji Room, Gambiran Regional General Hospital, Kediri City. The method used is a midwifery care approach that includes the stages of information gathering, diagnosis, planning, implementation, and evaluation. The results of this care showed that initial treatment in the form of resuscitation in accordance with standards, monitoring of vital signs, prevention of infection, administration of antiretroviral drugs according to protocol, and support for early exclusive breastfeeding can help improve the condition of the infant. The evaluation results showed improvement in breathing ability, normalization of vital signs, and no further complications. The conclusion of this study is that comprehensive, prompt, appropriate, and standard obstetric care for infants with mild asphyxia born to HIV-infected mothers can improve the infant's quality of life and prevent further illness or death.

Keywords

asphyxia; HIV; midwifery care; neonatal

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INTRODUCTION

Human Immunodeficiency Virus (HIV) is a disease caused by a virus that attacks the immune system and triggers AIDS (acquired immunodeficiency syndrome) (Kristiono & Astuti, 2019). The risk of HIV/AIDS transmission is not only for high-risk groups, but also for their partners, and even from HIV-infected mothers to their children during pregnancy (up to 23%), during childbirth (up to 65%), and during breastfeeding (10%). More than 90% of children infected with HIV/AIDS are infected through the mother-to-child transmission. HIV infection during pregnancy causes problems not only for the mother but also for the unborn baby in relation to HIV/AIDS transmission, which occurs through bodily fluids, meaning that blood and breast milk are also included as media for virus transmission to the baby. The increase in the number of housewives with HIV and the lack of

awareness regarding HIV/AIDS testing have resulted in delayed treatment for HIV transmission from mother to child, causing the child to also become infected with HIV/AIDS (Ministry of Health of the Republic of Indonesia, 2020).

Children born to mothers who test positive for HIV are at high risk of contracting HIV themselves. Approximately 60-75% of children are not infected and do not require intervention. On average, 30% are infected, including 5 to 10% during pregnancy, 10 to 20% during childbirth, and 10% during breastfeeding. Based on these data, the Prevention of Mother-to-Child Transmission of HIV (PMTCT) program was established as an effort to educate the public that, in the worst-case scenario, 40 children could become infected with HIV/AIDS (Noviana, 2018).

METHODS

This study employed a descriptive case study method, utilizing a comprehensive midwifery care approach. The purpose of this method was to describe in depth the implementation of midwifery care in neonates with term conditions, mild asphyxia, and from mothers with B20. The research was conducted in the Neonatal Care Room (Panji Room) of Gambiran Regional General Hospital, Kediri City, from June 16 to 28, 2025. The subject of this study was a newborn baby of Mrs. F, aged 0 days, with conditions of term, mild asphyxia, and from a mother with B20, while the object of the study was the midwifery care process provided to the baby.

Data collection was conducted through direct observation of the patient's condition, interviews with family members and healthcare personnel, review of medical records and documentation studies, and literature reviews to strengthen the theory and management approach. The instruments used for data collection included maternal and neonatal assessment forms, midwifery management process forms based on Varney's seven-step approach, and patient progress notes using the SOAP approach. Data analysis was performed using descriptive qualitative methods, which involved describing the results of the assessment, diagnosis, intervention, implementation of actions, and evaluation based on midwifery care standards and relevant current literature.

RESULTS

The assessment results showed that Ms. F was a newborn baby aged 0 days, born at term at 39 weeks of gestation, with mild asphyxia and from a mother with B20 (HIV). At birth, the baby did not cry spontaneously, experienced rapid breathing, chest wall retractions, and cyanosis of the

extremities, which are clinical signs of asphyxia. The APGAR score at the first minute was 7, and at the fifth minute was 8, prompting immediate resuscitation by the medical team. Subsequently, the infant was referred to the HCU for intensive care, including nasal oxygen therapy.

Mild asphyxia in infants, reflected in an Apgar score of 7–8 at one or five minutes, indicates mild impairment of respiratory or circulatory function, but generally the infant is still able to breathe spontaneously and maintain a heart rate above 100×/minute. Immediate treatment involves clearing the airway, stimulating breathing, and maintaining body temperature so that the respiratory transition conversion proceeds optimally (Deva Aina, 2024).

HIV transmission from mother to newborn (vertical or perinatal transmission) can occur through three main routes: intrauterine (through the placenta during pregnancy), intrapartum (during delivery through exposure to the mother's blood and bodily fluids), and postpartum (through breast milk if the mother is breastfeeding). In Indonesia, without adequate health interventions, the risk of transmission can reach 15–45%, but it can be reduced to less than 2% with PMTCT programs that include ARV therapy for pregnant women, appropriate delivery (such as elective caesarean section if viral load is high), ARV prophylaxis for infants, and replacement of breast milk with exclusive formula. Therefore, integrated management involving early HIV screening, ARV for mothers and infants, and selection of infant feeding methods is crucial to prevent HIV in infants in Indonesia (Liansyah, 2018).

Elective cesarean section (CS) in HIV-positive mothers has significant advantages over spontaneous delivery in reducing the risk of vertical HIV transmission, especially when the mother's viral load is high. A literature review in Indonesia shows that elective CS performed before the onset of labor or rupture of membranes can reduce the risk of transmission by 50–87% compared to vaginal delivery. National guidelines recommend scheduled C-sections for mothers with high viral loads, combined with intrapartum ARV therapy (ZDV infusion), to minimize the baby's exposure to the mother's blood and genital fluids. Local sources such as Yuliana & Alexander (2020) in the Journal of Midwifery emphasize the effectiveness of elective C-sections in suppressing HIV transmission and reducing perinatal complications, with C-sections recommended for mothers without ARV or uncontrolled viral load. With the implementation of elective C-sections alongside the PMTCT protocol, the rate of vertical transmission is expected to decrease significantly, approaching the target of <2% (Yuliana & Alexander, 2020).

DISCUSSION

Midwifery care provided includes comprehensive assessment, midwifery diagnosis, planning, and implementation of collaborative and independent interventions. Collaborative actions are carried out together with pediatricians and HCU nurses for further medical management, while independent actions by midwives include monitoring vital signs, fulfilling nutritional needs through parenteral nutrition, preventing hypothermia, and educating parents about the condition and follow-up care.

The evaluation revealed a gradual improvement in the baby's condition, characterized by increased oxygen saturation, decreased retraction frequency, and the gradual emergence of sucking reflexes. Therefore, midwives' ability to identify neonatal emergencies, make timely referrals, and collaborate with other healthcare workers is crucial in efforts to improve the quality of life for high-risk neonates.

CONCLUSION

Comprehensive midwifery care for term neonates with mild asphyxia from mothers with B20 in the Panji Room of Gambiran Regional General Hospital, Kediri City, shows that prompt, appropriate, and standard neonatal care can significantly improve the condition of the baby. Immediate resuscitation after birth, close monitoring of vital signs, adequate oxygenation, and infection prevention through antiretroviral (ARV) prophylaxis were key to the success of the care. In addition, early lactation support and counseling on safe feeding for infants played an important role in supporting nutritional status and preventing vertical transmission of HIV.

Through the systematic implementation of midwifery care steps—from assessment, diagnosis, planning, implementation, to evaluation—the condition of the neonate can be stabilized, vital signs returned to normal, and further complications prevented. These care outcomes underscore the importance of midwives' competence in managing cases of mild asphyxia and supporting programs to prevent mother-to-child transmission of HIV (PMTCT).

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