



NEONATAL JAUNDICE IN HYPERBILIRUBINEMIC INFANTS

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Case Study

ABSTRACT

Introduction: Hyperbilirubinemia is a problem that often occurs in newborns. In pathological conditions, infants experience jaundice throughout the body or degrees three to six experiencing hyperbilirubinemia > 12 mg/dl. Complications of kernicterus where brain cells are damaged, are characterized by seizures, decreased consciousness and can end in death. East Java Health Profile 2013, neonatal icterus neonatorum death ranks third. **Methods:** This research uses a case study design. Data collection from assessment to nursing evaluation was carried out in the neonatal room of Dr. Soegiri Lamongan Hospital in November 2019. Clients were treated in hospital for three to five days. Data collection techniques using interviews, observation, and documentation. Data analysis was carried out using narrative analysis based on analysis of relevant facts and theories. **Results:** In the assessment, the baby experienced symptoms of jaundice, yellow mucous membranes, yellow skin, and yellow sclera. Intervention and implementation were observing the degree of jaundice, vital signs, intake output, signs of dehydration, and phototherapy. Health education on breastfeeding and collaboration in drug administration. **Conclusions:** There is a match between theory and cases, there is a decrease in the degree of jaundice. The reference from this study is that nurses are able to provide health education on breastfeeding, do phototherapy and be able to detect the incidence of jaundice early in infants so there is no kernicterus and other complications.

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INTRODUCTION

Hyperbilirubinemia is a condition in which the baby has jaundice due to high levels of bilirubin in the blood. Hyperbilirubinemia can occur physiologically or pathologically. Pathological condition if the bilirubin level > 12 mg/dl. Hyperbilirubinemia can cause complications in the form of kernicterus, where kernicterus is a neurological syndrome that arises as a result of the accumulation of conjugated effects in brain cells so that the brain is damaged, this can cause seizures, decreased consciousness, and death can occur (Prasitnok et al., 2017). One of the causes of the highest neonatal mortality rate in Indonesia is caused by hypothermia (7%), icterus neonatorum (6%), asphyxia and low birth weight (LBW) (Depkes, 2014).

Hyperbilirubinemia can be caused by a variety of conditions in infants. The most common cause is hemolysis resulting from ABO blood group incompatibility or G6PD

enzyme deficiency. This hemolysis can also occur due to closed bleeding (cephal hematoma, subaponeurotic hemorrhage) or Rh blood group incompatibility. Infection can also play a role in the occurrence of hyperbilirubinemia, this is due to the baby in a state of sepsis and gastroenteritis disorders. Other factors are hypoxia or asphyxia, dehydration and acidosis, hypoglycemia, and polycythemia (Atikah & Jaya, 2016). Jaundice can also be caused by insufficient food intake because milk production is still lacking on the first day. As a result, direct bilirubin that has reached the intestine is not bound by food and is not excreted through the anus with food.

Management of hyperbilirubinemia can be done by phototherapy in infants. Decomposition of bilirubin with phototherapy can reduce bilirubin rapidly. Health education to mothers in providing nutrition in the form of breast milk is important to help remove direct bilirubin that has reached the intestines.

Collaborative administration of phenobarbital works as an enzyme stimulant so that conjugation can be accelerated. Antipyretics function to lower the temperature in the temperature control center in the hypothalamus, antipyretics are useful for preventing the formation of prostaglandins by inhibiting the cyclooxygenase enzyme so that the hypothalamic set point is lowered back to normal which is ordered to produce heat above normal and reduce heat loss (Atikah & Jaya, 2016). The purpose of this study was to describe nursing care for neonatal jaundice in hyperbilirubinemic infants.

MATERIALS AND METHODS

This research uses a case study design. A case study is a research to collect, organize, and analyze data. The data are compared with each other while adhering to holistic and contextual principles (Luthfiyah, 2017). The five stages of the nursing process, starting from client assessment to evaluation, are carried out in the Neonate Room of RSD Soegiri Lamongan for three to five days of treatment. Furthermore, it is presented in a narrative from the facts in the field and relevant theories.

RESULTS

Mrs. F's baby is female and 9 days old. The study found that the three babies had jaundice in the face, eyes, hands and feet. The results of the examination of the indirect bilirubin levels of the three clients were 17.00 mg/dl, 15.00 mg/dl and 12.00 mg/dl. Examination of the body temperature of one client experienced hyperthermia with a temperature of 38.3°C. a clinical condition in infants characterized by icterus staining of the skin and sclera due to excessive accumulation of unconjugated bilirubin. Clinical jaundice will begin to appear in newborns when the blood bilirubin level is 5-7 mg/dL (Tazami, Mustarim, & Shah, 2013).

Analysis of the data from the assessment found that the nursing diagnosis of Neonatal Jaundice was associated with difficulty in transitioning to extra-uterine life (SDKI, 2017). The nursing diagnosis was neonatal jaundice associated with difficult transition to extra uterine life.

DISCUSSION

The implementation of nursing was carried out by observing signs including observing the degree of icterus. The degree of icterus decreased from grade four to grade one at three and five days of treatment. Observation of the vital signs of two clients did not

experience hyperthermia and one patient experienced hyperthermia with a temperature of 38.3°C, decreased to the normal limit of 37°C Celsius on the 4th day of treatment. Performed phototherapy on the three clients, observed fluid intake and output, no signs of serious dehydration were found, only one client experienced hyperthermia. Health education on breastfeeding, mothers are encouraged to breastfeed every 2 hours intensively to help reduce jaundice levels. Collaboration of drugs, namely Infusion of C III (IV) 300cc/24hours, Injection of Cefotaxim (IV) 2x150 mg, Injection of Gentamicin (IV) 15mg per 24 hours.

Evaluation on the 3rd day of treatment, both babies were allowed to go home and one baby was treated until the 5th day. Objective data showed that jaundice had decreased to one degree, no re-laboratory examination was carried out, the temperature of the three babies was below 37°C Celsius and two babies 36.6°C Celsius.

CONCLUSIONS

Based on the results of research and discussion as well as the purpose of case study research on nursing care for neonatal jaundice in hyperbilirubinemia infants, there is a match between theory and facts in the field.

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