ABSTRACT

Background Urinary tract infections (UTI) are a common source of infection for children and infants. This disease is one of the causes that are associated with acute morbidity and chronic conditions that lead to kidney failure at an older age. This disease can affect neonates since 72 hours of life. The risk factors of UTI are important for early diagnosis of UTI to prevent further kidney damage.

Objective To determine whether male gender, sepsis, very low birth weight (VLBW), the use of venous catheters and antibiotics, and ventilators are risk factors for UTI in neonates at Haji Adam Malik Hospital Medan.

Methods Non-pairing case-control studies conducted in November 2013 - January 2014 at Haji Adam Malik Hospital Medan. The case is a neonate aged three to 28 days diagnosed with UTI and control is a neonate aged three to 28 days who didn’t suffer UTI. Risk factors were then assessed through medical record. Data were analyzed using logistic regression.

Results The total number of eligible sample in this study of 60 neonates with each group of 30 children. Sepsis and VLBW were significantly risk factors for UTI with OR 5.301 (95%CI 1.506-18.661) and 13.608 (95%CI 1.481-125.047) respectively. Sex, use of venous catheter and antibiotics, and ventilators were not a risk factor for UTI in neonates.

Conclusion Sepsis and VLBW were associated with an increased risk of UTI in neonates.

Keywords: urinary tract infection, neonates, risk factors, sepsis, very low birth weight