



FAKTOR PROGNOSTIK PERDARAHAN SALURAN CERNA PADA PASIEN ANAK DI PEDIATRIC INTENSIVE CARE UNIT

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INTISARI

Latar belakang: Perdarahan saluran cerna merupakan kasus gawat darurat yang dapat menyebabkan berbagai komplikasi hingga kematian pada pasien anak yang dirawat di *Pediatric Intensive Care Unit* (PICU). Beberapa faktor prognostik perdarahan saluran cerna telah diteliti pada dewasa, namun belum banyak diteliti pada populasi anak.

Tujuan: Mengetahui faktor prognostik terjadinya perdarahan saluran cerna pada anak yang dirawat di PICU.

Metode: Dilakukan studi kasus kontrol dengan sampel anak berusia 1 bulan - 18 tahun yang dirawat di PICU RSUP Dr. Sardjito Yogyakarta periode Januari 2019-Desember 2021. Sampel diambil secara *total sampling* dengan kriteria inklusi, eksklusi dan *matching* berdasarkan kondisi masuk PICU. Kurva ROC digunakan untuk menghitung *cut-off*, kemudian dilakukan analisis bivariat dan analisis multivariat. Hubungan antar variabel dinyatakan dengan *odds ratio* (OR) dan interval kepercayaan 95% dengan tingkat kemaknaan statistik $p < 0,05$.

Hasil: Kelompok kasus terdiri dari 162 anak dengan perdarahan saluran cerna dan kelompok kontrol terdiri dari 162 anak tanpa perdarahan saluran cerna. Prevalens perdarahan saluran cerna pada anak di PICU berjumlah 25,5%, angka mortalitas pasien yang memiliki diagnosis perdarahan saluran cerna mencapai 54,3%. Analisis multivariat menunjukkan trombositopenia < 77.000 ($p=0,022$; OR 2,0; IK95% 1,10-3,61), hiperlaktatemia $> 3,66$ ($p=0,006$; OR 2,26; IK95% 1,27-4,04), APTT $> 62,1$ ($p=0,026$; OR 2,96; IK95% 1,13-6,43), sepsis ($p=0,045$; OR 1,7; IK95% 1,01-2,97), usia dalam tahun ($p < 0,001$; OR 1,09; IK95% 1,05-1,14) dan kebutuhan tunjangan ventilasi mekanik > 48 jam ($p < 0,001$; OR 3,04; IK95% 1,72-5,38) meningkatkan risiko terjadinya perdarahan saluran cerna pada pasien di PICU.

Kesimpulan: Trombositopenia, hiperlaktatemia, pemanjangan APTT, dan kebutuhan tunjangan ventilasi mekanik > 48 jam merupakan prognostik terjadinya perdarahan saluran cerna pada anak di PICU.

Kata kunci: PICU, perawatan intensif anak, perdarahan saluran cerna, anak, faktor prognostik



PROGNOSTIC FACTORS OF GASTROINTESTINAL BLEEDING OF CHILDREN IN PEDIATRIC INTENSIVE CARE UNIT

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ABSTRACT

Background: Gastrointestinal bleeding is an emergency situation which may cause various complications to death in children admitted in Pediatric Intensive Care Unit (PICU). Several prognostic factors for gastrointestinal bleeding have been studied in adults, but have not been studied in the pediatric population.

Objective: To determine prognostic factors of gastrointestinal bleeding in PICU.

Methods: A case control study was performed. Samples were children aged 1 month-18 years who were admitted to PICU of Dr. Sardjito Hospital during January 2019-December 2021. Samples were taken with total sampling method by inclusion/exclusion criteria, and matching based on condition upon PICU admission. Youden Index was used to calculate cut-off values, bivariate analysis using chi-square test to calculate p-value and multivariate analysis with logistic regression were conducted. The relationship between variables were presented as odds ratio (OR), confidence intervals 95%, and statistical significance levels $p < 0.05$.

Results: Case group consists of 162 children with gastrointestinal bleeding and control group consists of 162 children without gastrointestinal bleeding. Prevalence rate of gastrointestinal bleeding in PICU was 25,5%, the mortality rate of patients who had diagnosis of gastrointestinal bleeding were 54,3%. Multivariate analysis showed thrombocytopenia < 77.000 ($p=0,022$; OR 2,0; CI95% 1,10-3,61), hyperlactatemia $> 3,66$ ($p=0,006$; OR 2,26; CI95% 1,27-4,04), APTT $> 62,1$ ($p=0,026$; OR 2,96; CI95% 1,13-6,43), sepsis ($p=0,045$; OR 1,7; CI95% 1,01-2,97), age upon PICU admission ($p < 0,001$; OR 1,09; CI95% 1,05-1,14) and ventilator support > 48 hours ($p < 0,001$; OR 3,04; CI95% 1,72-5,38) increases the risk of gastrointestinal bleeding on children admitted in PICU.

Conclusion: Thrombocytopenia, hyperlactatemia, prolonged APTT, and ventilator support > 48 hours were prognostic factors of gastrointestinal bleeding in PICU.

Keywords: PICU, pediatric intensive care, gastrointestinal bleeding, children, prognostic factors.