

# Insidens dan Faktor-faktor yang Memengaruhi Hiperglikemia Pascaoperasi di PICU RSCM = Incidence and related factor of hyperglycemia in postoperative children at Pediatric Intensive Care Unit Cipto Mangunkusumo Hospital

Dina Marselina, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20525824&lokasi=lokal>

---

## Abstrak

Pembedahan dapat memicu respons stres metabolik yang dapat menimbulkan hiperglikemia. Mekanisme hiperglikemia pascaoperasi dihubungkan dengan resistensi insulin, peningkatan glukoneogenesis, dan glikogenolisis, serta penurunan glucose transporter-4. Hiperglikemia diduga sebagai respons adaptasi fisiologis “fight or flight” tetapi juga dikaitkan dengan peningkatan morbiditas dan mortalitas pascaoperasi. Risiko hiperglikemia pascaoperasi dan potensi bahaya yang ditimbulkan belum banyak disadari oleh para dokter. Penelitian ini bertujuan untuk mengetahui karakteristik pasien pascaoperasi di Pediatric Intensive Care Unit (PICU) di Rumah Sakit Ciptomangunkusumo, insidens hiperglikemia pada anak pascaoperasi, dan faktor-faktor yang memengaruhi hiperglikemia pascaoperasi. Penelitian ini merupakan suatu studi potong lintang terhadap 199 pasien di RSCM yang dirawat di ruang PICU pascaoperasi sepanjang Januari – Desember 2020. Data demografi serta gula darah pascaoperasi diambil dari rekam medis. Kejadian hiperglikemia pascaoperasi dalam 24 jam pertama adalah 42%. Faktor-faktor yang memengaruhi hiperglikemia pascaoperasi pada penelitian ini adalah usia > 60 bulan (rasio odds 1,92 (95% IK 1,08-3,41)  $p=0,025$ ) dan median durasi operasi >5 jam ( $p=0,001$ )

.....Surgery can trigger metabolic stress response that can lead to hyperglycemia. Mechanism of postoperative hyperglycemia is associated with insulin resistance, increased gluconeogenesis, and glycogenolysis, and decreased glucose transporters-4. Hyperglycemia is thought to be a physiological “fight or flight” adaptive response but also associated with increased postoperative morbidity and mortality. The risk of postoperative hyperglycemia and the potential dangers that it causes have not been widely realized by doctors. This study aims to determine the characteristics of postoperative patients at the Pediatric Intensive Care Unit (PICU) at Ciptomangunkusumo Hospital (RSCM), incidence of hyperglycemia in postoperative children, related factors of postoperative hyperglycemia. This study is a cross-sectional study of 199 patients at RSCM who admitted in PICU postoperative during January – December 2020. Demographic data and postoperative blood sugar were taken from medical records. The incidence of postoperative hyperglycemia in the first 24 hours was 42%. Related factors of postoperative hyperglycemia in this study were age > 60 months (Odds ratio 1,92 (95% CI 1,08-3,41);  $p=0,025$  and median operative duration > 5 hours ( $p=0,001$ ).