

INTISARI

ANALISIS FAKTOR RESIKO TERHADAP LUARAN PASCA LAPARATOMI DI ICU RSUP DR KARIADI

Latar belakang: Laparotomi merupakan prosedur pembedahan besar yang masih banyak digunakan dalam kondisi darurat maupun elektif, terutama ketika pendekatan minimal invasif tidak memungkinkan. Prosedur laparotomi ini memiliki risiko komplikasi dan mortalitas yang tinggi, sehingga perawatan pasca operasi di unit perawatan intensif (ICU) seringkali diperlukan untuk memantau dan menstabilkan kondisi pasien. Berbagai faktor risiko telah diidentifikasi berkontribusi terhadap luaran buruk pasca operasi, termasuk penyakit penyerta, status ASA tinggi, operasi darurat, durasi operasi panjang, fluktuasi tanda vital, dan kehilangan darah intraoperatif.

Tujuan: Untuk mengetahui hubungan antara kadar hemoglobin preoperatif, usia, kelas ASA, jumlah perdarahan, fluktuasi tekanan darah, dosis opioid, kadar hemoglobin pasca operatif, dan urin output terhadap luaran pasien pasca operasi laparotomi di ICU.

Metode: Penelitian analitik dengan studi kohort retrospektif pada pasien pasca laparotomi yang dirawat di ICU RS Kariadi tahun 2023- 2024.

Hasil: Kadar hemoglobin pasca operatif menunjukkan hubungan signifikan terhadap mortalitas baik dalam analisis bivariat ($p = 0.000$; OR = 5.800) maupun multivariat ($p = 0.036$; OR = 3.510). Jumlah perdarahan selama prosedur laparotomi tetap signifikan dalam kedua analisis, dengan hasil bivariat ($p = 0.000$; OR = 0.033) dan multivariat ($p = 0.008$; OR = 0.310). Fluktuasi tekanan darah selama operasi memiliki hubungan signifikan terhadap mortalitas dalam analisis multivariat ($p = 0.038$; OR = 0.249). Keluaran urin yang rendah (< 0.5 cc/kgBB/jam) juga menjadi faktor independen yang signifikan terhadap mortalitas, dengan nilai $p = 0.001$ dan OR = 0.156 dalam analisis multivariat. Kadar hemoglobin pre operatif awalnya menunjukkan hubungan bermakna ($p = 0.004$; OR = 3.270), namun menjadi tidak signifikan dalam multivariat ($p = 0.681$; OR = 0.760). Status ASA mengalami perubahan dari signifikan dalam bivariat ($p = 0.001$; OR = 0.068) menjadi tidak signifikan dalam multivariat ($p = 0.383$; OR = 0.678). Faktor usia ($p = 0.627$) dan dosis opioid selama operasi ($p = 0.907$) tidak menunjukkan hubungan bermakna terhadap mortalitas pasien pasca laparotomi.

Kesimpulan: Kadar hemoglobin preoperatif, status ASA, jumlah perdarahan, fluktuasi tekanan darah, kadar hemoglobin pasca operatif, dan urin output memiliki hubungan yang bermakna dengan mortalitas pasien pasca operasi laparotomi di ICU.

Kata kunci: Infeksi Intra Abdomen, Laparotomi, Hemoglobin, Jumlah Perdarahan, Fluktuasi Tekanan Darah, Dosis Opioid, Urin Output

ABSTRACT

ANALYSIS OF RISK FACTORS AFFECTING POST-LAPAROTOMY OUTCOMES IN THE ICU OF DR. KARIADI HOSPITAL

Background: Laparotomy is a major surgical procedure that is still widely used in emergency and elective settings, especially when minimally invasive approaches are not possible. Laparotomy procedures carry a high risk of complications and mortality, and postoperative care in the intensive care unit (ICU) is often required to monitor and stabilize the patient's condition. Various risk factors have been identified to contribute to poor postoperative outcomes, including comorbidities, high ASA status, emergency surgery, long duration of surgery, fluctuations in vital signs, and intraoperative blood loss.

Objective: To determine the relationship between preoperative hemoglobin level, age, ASA class, amount of bleeding, blood pressure fluctuation, opioid dose, postoperative hemoglobin level, and urine output on the outcome of laparotomy postoperative patients in ICU.

Methods: Analytical research with a retrospective cohort study of post-laparotomy patients treated in the RSDK ICU from 2022 - 2023.

Result: Postoperative hemoglobin levels showed a significant association with mortality in both bivariate ($p = 0.000$; OR = 5.800) and multivariate ($p = 0.036$; OR = 3.510) analyses. The amount of bleeding during the laparotomy procedure remained significant in both analyses, with bivariate ($p = 0.000$; OR = 0.033) and multivariate ($p = 0.008$; OR = 0.310) results. Blood pressure fluctuation during surgery had a significant association with mortality in the multivariate analysis ($p = 0.038$; OR = 0.249). Low urine output (<0.5 cc/kgBB/hour) was also a significant independent factor for mortality, with p value = 0.001 and OR = 0.156 in multivariate analysis. Preoperative hemoglobin level initially showed a significant association ($p = 0.004$; OR = 3.270), but became insignificant in multivariate ($p = 0.681$; OR = 0.760). ASA status changed from significant in bivariate ($p = 0.001$; OR = 0.068) to non-significant in multivariate ($p = 0.383$; OR = 0.678). Age ($p = 0.627$) and opioid dose during surgery ($p = 0.907$) showed no significant association with post laparotomy patient mortality.

Conclusion: Preoperative hemoglobin level, ASA class, amount of bleeding, blood pressure fluctuation, postoperative hemoglobin level, and urine output have a significant association with mortality of post laparotomy surgery patients in ICU.

Keywords: Intra-abdominal Infection, Laparotomy, Hemoglobin, Total Bleeding, Blood Pressure Fluctuation, Opioid Dose, Urine Output