Hubungan Kecukupan Protein Praoperasi dengan Kejadian Infeksi Daerah Operasi Pascalaparotomi Elektif = Association Between Preoperative Protein Adequacy and Incidence of Post Elective Laparotomy Surgical Site Infection

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Abstrak

Latar Belakang: Komplikasi pascaoperasi rentan terjadi pada populasi berisiko tinggi salah satunya adalah populasi yang menjalani operasi mayor. Infeksi daerah operasi (IDO) adalah salah satu komplikasi pascaoperasi yang sering ditemukan pada prosedur laparotomi. Pasien yang menjalani operasi akan mengalami respons stres pascaoperasi berupa peningkatan proses inflamasi yang berdampak pada peningkatan proteolisis protein otot. Sangat penting memerhatikan asupan protein praoperasi untuk meningkatkan cadangan protein otot, mendukung penyembuhan luka pascaoperasi dan imunitas. Penelitian terdahulu menjelaskan bahwa peningkatan asupan protein praoperasi sebesar 10% (> 1,2 g/kg BB/hari) dari kebutuhan dapat mengurangi risiko komplikasi (infeksi, non-infeksi dan dekubitus) sebesar 10%.
Metode: Studi kohort prospektif dilakukan pada 93 pasien dengan kelompok cukup protein sebanyak 48 subjek dan kelompok tidak cukup protein sebanyak 45 subjek yang akan menjalani laparotomi elektif di RSUPN Dr. Cipto Mangunkusumo, Jakarta. Analisis kecukupan protein dilakukan dengan metode wawancara selama 7 hari praoperasi. Pemantauan pasien dilakukan selama 30 hari pascaoperasi untuk menilai adanya komplikasi berupa IDO. Analisis hubungan keduanya dilakuan menggunakan uji Chi-Square dan dilakukan analisis multivariat untuk menilai faktor-faktor yang paling berhubungan dengan kejadian IDO pascalaparotomi elektif.
Hasil: Terdapat hubungan antara kecukupan protein praoperasi dengan kejadian infeksi daerah operasi pascalaparotomi elektif (RR 3,413; IK 95%, 1,363-8,549; p = 0,004). Hasil analisis multivariat menunjukan kecukupan protein praoperasi dan kadar albumin praoperasi berhubungan kuat untuk memprediksi terjadinya infeksi daerah operasi pascalaparotomi elektif.
Kesimpulan: Kecukupan protein dan kadar albumin praoperasi dapat memprediksi kejadian infeksi daerah operasi pascalaparotomi elektif.
.....Background: Postoperative complications are prone to occur in high-risk populations, one of which is the population undergoing major surgery. Surgical site infection (SSI) is one of the most common postoperative complications in laparotomy procedures. Patients who undergo surgery will experience a postoperative stress response in the form of an increase in the inflammatory process which results in an increase in muscle protein proteolysis. It is very important to focus on preoperative protein intake to increase muscle protein reserves, support postoperative wound healing and immunity. Previous research explained that the increment of preoperative protein by 10% (> 1.2 g/kg BW/day) can reduce the risk of complications (infectious, non-infectious and decubitus) by 10%.
Methods: A prospective cohort study was conducted on 93 patients with sufficient protein group of 48 subjects and protein insufficient group of 45 subjects undergoing elective laparotomy at Dr. Cipto Mangunkusumo Hospital, Jakarta. Analysis of protein adequacy was carried out by interview method for 7 days preoperatively. Patient monitoring was carried out for 30 days postoperatively to assess complications

in the form of SSI. Analysis of association between protein adequacy and SSI was carried out by using the Chi-Square test and multivariate analysis was performed to assess the most associated factors with post elective laparotomy SSI.
Results: There is a association between preoperative protein adequacy and the incidence of post elective laparotomy SSI (RR 3,413; 95% CI, 1,363-8,549; p = 0,004). The multivariate analysis showed that preoperative protein adequacy and preoperative albumin levels were strongly related to predict the occurrence of post elective laparotomy SSI.
Conclusion: Preoperative protein adequacy and albumin levels were strongly related to predict post elective laparotomy SSI.