Hubungan asupan protein pascaoperasi dengan perubahan Appendicular Skeletal Muscle Index pada pasien pembedahan mayor = Association between postoperative protein intake and changes in the Appendicular Skeletal Muscle Index in major surgery patients

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Abstrak

Latar Belakang: Kejadian malnutrisi pada pasien pembedahan mayor dilaporkan sebanyak 40% yang berhubungan dengan penurunan asupan akibat dari gejala yang dialami dan inflamasi pascaoperasi.1,2Kehilangan massa otot pascaoperasi dapat terjadi mulai dari lima hari pascaoperasi dan hal ini dapat meningkatkan risiko terjadinya komplikasi pascaoperasi. Penelitian ini bertujuan untuk mengetahui hubungan antara asupan protein pascaoperasi dengan perubahan Appendicular Skeletal Muscle Index (ASMI) pada pasien yang menjalani pembedahan mayor.
Metode: Penelitian prospektif observasional dilakukan pada pasien yang menjalani pembedahan mayor di Rumah Sakit Cipto Mangunkusumo. Analisis asupan protein dilakukan selama lima hari pascaoperasi. Perubahan ASMI didapatkan dari pemeriksaan praoperasi dan lima hari pascaoperasi. Analisis data dilakukan menggunakan uji Mann-Whitney dan uji t tidak berpasangan ($p < 0,05$).
Hasil: Penelitian ini melibatkan 110 subjek yang didominasi subjek perempuan dengan median usia 50 tahun. Terdapat 51 subjek dengan asupan protein pascaoperasi < 0,6 g/kgBB/hari dan 59 subjek dengan asupan protein pascaoperasi 0,6 g/kgBB/hari. Hasil perubahan ASMI dalam rentang -3,9 sampai 2,5 kg/m2. Setelah dilakukan analisis statistik didapatkan perbedaan bermakna rerata perubahan ASMI antara subjek dengan asupan protein pascaoperasi < 0,6 g/kgBB/hari dengan asupan protein pascaoperasi 0,6 g/kgBB/hari.
Kesimpulan: Terdapat hubungan bermakna antara asupan protein pascaoperasi dengan perubahan ASMI pada pasien pembedahan mayor. Hal ini menunjukkan pentingnya pemberian protein pascaoperasi yang optimal untuk mempertahankan massa otot.
.....Background: The incidence of malnutrition in major surgical patients is reported to be as high as 40%, associated with reduced intake due to symptoms experienced and postoperative inflammation. Postoperative muscle mass loss can begin as early as five days after surgery and may increase the risk of postoperative complications. This study aims to investigate the relationship between postoperative protein intake and changes in the Appendicular Skeletal Muscle Index (ASMI) in patients undergoing major surgery.
Methods: A prospective observational study was conducted on patients undergoing major surgery at Cipto Mangunkusumo Hospital. Protein intake analysis was performed over five days postoperatively. Changes in ASMI were assessed through preoperative and five-day postoperative examinations. Data analysis was conducted using the Mann-Whitney test and independent t-test ($p < 0.05$).
Results: The study involved 110 subjects, predominantly female, with a median age of 50 years. There were 51 subjects with postoperative protein intake < 0.6 g/kgBW/day and 59 subjects with postoperative protein intake 0.6 g/kgBW/day. The range of ASMI changes was -3.9 to 2.5 kg/m . Statistical analysis revealed a significant difference in the mean ASMI change between subjects with postoperative protein intake < 0.6 g/kgBW/day and those with intake 0.6 g/kgBW/day.

Conclusion: There is a significant relationship between postoperative protein intake and changes in ASMI in major surgical patients. This highlights the importance of optimal postoperative protein provision to maintain muscle mass.