Pengaruh Diet Restriksi Kalori terhadap Kadar Protein C Reaktif pada Obesitas: Sebuah Telaah Sistematis dan Meta-Analisis Uji Klinis Acak = Effect of Calorie Restriction Diet on Reactive C Protein Levels in Obesity: A Systematic Review and Metanalysis Randomized Clinical Trials

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Abstrak

atar Belakang: Balans energi positif pada obesitas ditandai dengan hiperadipositosis dan merangsang proses inflamasi kronik yang berdampak pada komplikasi penyakit pasien obesitas. Salah satu penatalaksaan obesitas adalah pemberian diet restriksi kalori. Diet restriksi kalori diduga menyebabkan penurunan kondisi inflamasi kronik yang salah satunya ditandai dengan kadar c-reactive protein (CRP). Namun demikian, berbagai studi memberikan hasil yang inkonsisten.
Tujuan: Menilai efek diet restriksi kalori terhadap perubahan kadar CRP dan menilai pengaruh durasi diet tertentu terhadap perubahan kadar CRP pasien obesitas.
Sumber Data: Pencarian utama dilakukan pada basis data PubMed, ProQuest, EBSCOhost, Embase dan Scopus hingga 30 Oktober 2020. Pencarian sekunder juga dilakukan secara snowballing, Google Scholar, Global Index Medicus, portal basis data nasional, dan perpustakaan digital 40 universitas di Indonesia.
Seleksi Studi: Studi uji klinis acak melibatkan pasien dewasa obes yang menilai efek diet restriksi kalori (tanpa mengkombinasikan dengan terapi nondiet lain) terhadap kadar CRP. Tidak ada batasan tahun publikasi dan bahasa. Penilaian terhadap judul, abstrak dan studi dilakukan oleh dua peninjau independen. Dari 2087 artikel, 11 studi diantaranya memenuhi kriteria eligibilitas.
Ekstraksi Data: Ekstraksi data dilakukan oleh kedua peninjau. Korespondensi dilakukan dengan menghubungi peneliti dan tidak didapatkan adanya data tambahan.
Hasil: Diet restriksi kalori memiliki efek terhadap penurunan kadar CRP pada pasien obesitas dengan nilai Mean Difference -0.22 (IK 95% -0.40 - -0.04, p 0.006). Intervensi restriksi diet 12 minggu tidak menunjukkan penurunan bermakna pada kadar CRP, sedangkan intervensi restriksi diet > 12 minggu menunjukkan penurunan bermakna pada kadar CRP.
Kesimpulan
Diet restriksi kalori memiliki efek menurunkan kadar CRP pada pasien obesitas.
.....Background: Positive energy balance in obesity is characterized by hyperadipocytosis, which stimulates chronic inflammatory processes in obese patients. Management of obesity includes a calorie restriction diet thought to improve chronic inflammatory conditions, characterized by reduced c-reactive protein (CRP). However, studies have yielded inconsistent results.
Objective: To assess the effect of a calorie-restricted diet on changes in CRP levels and the duration of a particular diet that is significant for its effect on changes in CRP levels in obese patients
Data Source: We searched PubMed, ProQuest, EBSCOhost, Embase and Scopus through October 30,2020. Secondary searching was done by snowballing method including references of qualifying articles and manual searching through google scholar, global index medicus, national databases, and digital library of 40 universities in Indonesia

Study Selection: A randomized controlled trial involving obese adult patients assessed the effect of a calorie-restricted diet (without combination with other nondiet therapy) on CRP levels. No restriction regarding year of publication and language. Titles, abstracts, and articles were reviewed by two independent reviewer. Of the 2087 studies identified in our original search, 11 of them met the eligibility criteria.
Data Extraction: Data extraction was done by two reviewers. Correspondence was done by contacting the authors to confirm additional data. No additional data was obtained
Result: The calorie restriction diet has an effect on reducing CRP levels in obese patients with a Mean Difference value of -0.22 (95% CI -0.40 - -0.04, p 0.006). Dietary restriction interventions 12 weeks did not show a significant decrease in CRP levels, while dietary restriction interventions > 12 weeks showed a significant decrease in CRP levels
Conclusion: A calorie restriction diet has the effect of lowering CRP levels in obese patients