Hubungan antara Pola Asupan dengan Marker Inflamasi Usus Fecal Calprotectin pada Anak Prasekolah Kelebihan Berat Badan dan Obesitas di Jakarta = Association between Dietary Pattern and Gut Inflammation Marker Fecal Calprotectin among Overweight and Obese Preschool Children in Jakarta

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Abstrak

Kurangnya penelitian mengenai transisi pada pola asupan dan marker inflamasi usus pada anak gemuk. Studi ini bertujuan untuk melihat hubungan anatara pola asupan dan fecal calprotectin pada anak prasekolah.Studi potong lintang ini dilakukan pada 101 anak dengan BMI Z score > 1 SD dengan median 2.26 (1.61, 3.43) SD serta menggunakan semiquantitative food frequency questionnaires yang telah divalidasi dimana, pola asupan diperoleh dengan menggunakan principal component analysis. Hasil studi menunjukkan 66% anak mempunyai kadar fecal calprotectin > 50 µg/g dan berhubungan dengan BMI Z score (p=0.05, r=1.89). Pola asupan (healthy pattern p=0.132, western pattern p=0.555, staple pattern p=0.541 and milk pattern p=0.534) ditemukan tidak berhubungan dengan inflamasi saluran cerna. Penelitian lebih lanjut dibutuhkan untuk mengkonfirmasi hasil studi ini dengan menggunakan pendekatan lain dan kombinasi antar marker inflamasi usus.

.....Lack of study confirmed the relationship between transition of diets and gut inflammation marker in obese children. Our study aimed to investigate the association between dietary pattern and fecal calprotectin level in preschool children. A cross sectional study was conducted in 101 children with body mass index (BMI) Z-score > 1 SD and median 2.26 (1.61, 3.43) SD using validated semi quantitative food frequency questionnaires whereas dietary patterns were revealed by principal component analysis. We found 66% children had fecal calprotectin levels > 50 µg/g. The fecal calprotectin level correlated with BMI Z score (p=0.05, r=1.89). Major dietary patterns were revealed: healthy pattern (p=0.132), western pattern (p=0.555), staple pattern (p=0.541) and milk pattern (p=0.534) and multivariate analysis showed no significant association with fecal calprotectin even after full adjustment for age, sex, sedentary physical activity, BMI Z score, fat intake and total fibre intake. Our findings acknowledged the insignificant association diet with gut inflammation marker had been observed due the baseline characteristic BMIZ score of the children more contribute to the elevated of fecal calprotectin level. Further investigations are warranted with a specific inflammatory food approach using a combination of marker gut inflammation.