

ABSTRAK

Hubungan Antara Kadar Fecal Calprotectin dan CRP Pada Pasien Kolitis

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Latar Belakang: Beberapa biomarker peradangan mukosa usus yang telah dievaluasi menunjukkan bahwa biomarker tinja saat ini digunakan untuk mengkonfirmasi diagnosis dan untuk memprediksi aktivitas mukosa pada penyakit radang usus. Berbagai penelitian sebelumnya menunjukkan adanya kontroversi hubungan antara kadar Fecal Calprotectin dan CRP pada pasien kolitis.

Tujuan: Mempelajari hubungan antara kadar fecal calprotectin dan CRP pada pasien kolitis.

Materi dan Metode: Penelitian analitik *cross-sectional* ini melibatkan 30 subyek terdiagnosis kolitis melalui kolonoskopi dan patologi anatomi. Kadar fecal calprotectin dianalisis dengan metode ELISA sedangkan kadar *C-reactive protein* diukur dengan metode *particle enhanced turbidimetric immunoassay* dari Siemens Flex, yang bertujuan untuk mengukur CRP secara kuantitatif di serum manusia.

Hasil: Dari 30 subyek penelitian yang telah terdiagnosis colitis, didapatkan 16 subyek berjenis kelamin laki-laki dan 14 subyek berjenis kelamin perempuan dengan median umur 52,5 (18-70) tahun. Kadar median fecal calprotectin meningkat 67 (7,3-722) $\mu\text{g/g}$ dan didapatkan positif ($\geq 50 \mu\text{g/g}$) pada 20 orang subyek (66,7%). Pemeriksaan CRP pada subyek penelitian menunjukkan rerata 13,64 mg/L dengan CRP positif (kadar $\geq 10\text{-}15 \text{ mg/L}$) didapatkan pada 13 orang (43,33%) sedangkan CRP negatif (kadar $< 10 \text{ mg/L}$) sebanyak 17 orang (56,67%). Pada penelitian ini menunjukkan bahwa kadar fecal calprotectin secara signifikan berkorelasi dengan CRP ($r=0,57$; $p<0,001$) pada pasien colitis.

Kesimpulan: Kadar fecal calprotectin berhubungan dengan CRP pada pasien kolitis.

Kata Kunci: Fecal calprotectin, CRP, kolitis.

ABSTRACT

Correlation between Fecal Calprotectin and CRP in Colitis Patients

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Background: Several biomarkers of intestinal mucosal inflammation that were evaluated suggest that fecal biomarkers are currently used to confirm the diagnosis and to predict mucosal activity in inflammatory bowel disease. Previous studies have shown a controversial relationship between levels of Fecal Calprotectin and CRP in colitis patients.

Objective: To study the relationship between fecal calprotectin levels and CRP in colitis patients.

Material and Methods: This cross-sectional analytic study involved 30 subjects diagnosed with colitis through colonoscopy and anatomical pathology. Fecal calprotectin levels were analyzed by ELISA method while C-reactive protein levels were measured by the Siemens Flex particle enhanced turbidimetric immunoassay method, which aims to quantitatively measure CRP in human serum.

Results: Of the 30 study subjects who had been diagnosed with colitis, it was found that 16 subjects were male and 14 subjects were female with a median age of 52.5 (18-70) years. The median level of fecal calprotectin increased by 67 (7.3-722) $\mu\text{g} / \text{g}$ and was positive ($\geq 50 \mu\text{g} / \text{g}$) in 20 subjects (66.7%). CRP examination in research subjects showed a mean of 13.64 mg / L with positive CRP (levels ≥ 10 -15 mg / L) was found in 13 people (43.33%) while negative CRP (levels < 10 mg / L) were 17 people (56.67%). This study showed that fecal calprotectin levels were significantly correlated with CRP ($r = 0.57$; $p < 0.001$) in colitis patients.

Conclusion: Levels of fecal calprotectin are associated with CRP in colitis patients.

Keywords : Fecal calprotectin, CRP, colitis.