

POLA KONSUMSI KARBOHIDRAT, LEMAK, DAN SERAT PANGAN PADA PENDERITA RADANG USUS DI RSUP DR. SARDJITO

ABSTRAK

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Pola konsumsi penderita *Inflammatory Bowel Disease* (IBD) dan *Irritable Bowel Syndrome* (IBS) sangat berpengaruh terhadap tingkat keparahan gejala yang dialami. Hal ini karena komposisi dan keseimbangan mikrobiota dipengaruhi oleh pola konsumsi. Mikrobiota usus memberikan hubungan sinergis dengan mekanisme perlindungan dan integritas pelindung epitel usus. Disbiosis mikrobiota usus dapat menyebabkan gangguan regulasi protein *tight junction* (TJ) pada usus yang dapat menyebabkan gangguan permeabilitas usus. Akibatnya, bakteri patogen dapat masuk dan menyebabkan respon peradangan pada penderita IBD dan dapat menyebabkan gejala pada IBS. Selain itu, disbiosis juga dapat menyebabkan berkurangnya penyerapan asam empedu dan produksi gas yang dapat memperburuk gejala pada penderita IBS.

Beberapa jenis karbohidrat serta lemak dan turunannya diketahui dapat memperburuk gejala pada IBD dan IBS serta dapat menyebabkan disbiosis, sedangkan serat pangan akan difermentasi di usus menghasilkan metabolit, salah satunya asam lemak rantai pendek (SCFA), yang diketahui dapat memperbaiki disbiosis di usus. Uji signifikansi dilakukan terhadap tiga senyawa tersebut dan didapatkan bahwa konsumsi karbohidrat dan lemak tidak berpengaruh secara signifikan, sedangkan serat pangan memberikan pengaruh secara signifikan dengan kondisi pada penderita radang usus.

Kata kunci : Pola konsumsi, karbohidrat, lemak, serat pangan, *Inflammatory Bowel Disease*, *Irritable Bowel Syndrome*

**CONSUMPTION PATTERNS OF CARBOHYDRATES, FATS, AND
DIETARY FIBERS IN THE INTESTINAL INFLAMMATION IN RSUP
DR. SARDJITO**

ABSTRACT

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The consumption pattern of patients with *Inflammatory Bowel Disease* (IBD) and *Irritable Bowel Syndrome* (IBS) greatly influences the severity of the symptoms they experience. This is because the composition and the balance of microbiota are influenced by consumption patterns. The gut microbiota provides a synergistic relationship with the protective mechanisms and protective integrity of the intestinal epithelium. Dysbiosis of the gut microbiota can cause regulation of tight junction (TJ) proteins in the gut which can lead to intestinal permeability disorders. As a result, pathogenic bacteria can enter and cause an inflammatory response in IBD sufferers and can cause symptoms of IBS. In addition, dysbiosis can also cause reduced absorption of bile acids and gas production which can exacerbate symptoms in people with IBS.

Several types of carbohydrates also fats and their derivatives are known to exacerbate symptoms in IBD and IBS and can cause dysbiosis, while dietary fibre will be fermented in the intestine to produce metabolites, one of which is short-chain fatty acids, which are known to improve dysbiosis in the intestine. Significance tests were carried out on these three compounds and it was found that the consumption of carbohydrates and fats did not have a significant effect, while dietary fibre had a significant effect on inflammatory bowel conditions in patients.

Keywords: Consumption patterns, carbohydrates, fats, dietary fibre, Inflammatory Bowel Disease, Irritable Bowel Syndrome