The Modulating Effect Of Remicade In The Inflammation In Crohn’s Disease

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The inflammatory bowel diseases (IBD) are challenging because therapy failure is common. Actually, drugs against the tumor necrosis factor alpha (TNF-alpha) such Remicade are an effective therapy for IBD. The aim of this study is to investigate the effect of Remicade on some inflammatory markers in Crohn’s disease (CD) colonic mucosa. In vitro organ cultures from biopsies of 10 CD patients were challenged with Escherichia Coli from Lipopolysaccharide (EC-LPS, 1μg/mL) in presence/absence of Remicade (Merck, 40μg/ml). Immunofluorescence assay were used to investigate the expression of the inflammatory markers COX-2, ICAM-1 and TG2 and Cytochrome C. We show a decrease of COX-2 ICAM-1, TG2 and Cytochrome C expression in mucosa from biopsies exposed to EC-LPS but pre-treated with Remicade in comparison to biopsies not pre-treated. This model is an useful tool to monitor the molecular effect of Remicade on inflammation in Crohn’s disease patients and can be utilized with other drugs to transfer more effectively and quickly the experimental results from bench to bedside.