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Abstrak

Probiotik berfungsi sebagai imunomodulator dan imunonutrisi pada penderita penyakit kritis seperti sepsis, tetapi mekanismenya belum diketahui secara pasti. Penelitian ini bertujuan untuk menentukan efek pemberian probiotik pada kadar IgA mencit model sepsis di Rumah Sakit dr. Moewardi/Fakultas Kedokteran Universitas Sebelas Maret Surakarta periode Juli 2009–2010. Hewan uji berupa 18 ekor mencit Balb/C jantan yang dibagi menjadi tiga kelompok. Kelompok I tanpa diberi perlakuan (kontrol negatif), kelompok II adalah mencit model sepsis yang diinokulasi dengan lipopolisakarida (LPS)-*E.coli* (0,4 mg/mencit/i.p.), dan kelompok III adalah mencit model sepsis yang diinokulasi dengan LPS-E.coli serta diberi probiotik. Kadar IgA serum diperiksa dengan menggunakan ELISA. Data dianalisis secara statistik dengan *one way* ANOVA. Kadar IgA serum pada kelompok mencit normal 35,82±4,55 ng/mL. Pemaparan LPS-*E.coli* menurunkan kadar IgA serum menjadi 6,20±5,80 ng//mL. Pemberian probiotik pada mencit model sepsis, mampu meningkatkan kadar IgA serum menjadi 65,07±34,97 ng/mL. Probiotik secara bermakna meningkatkan kadar IgA serum dibandingkan dengan kelompok mencit sepsis (65,07±34,97 ng/mL vs 6,20±5,80 ng/mL, p=0,000). Simpulan, pemberian probiotik meningkatkan kadar IgA serum pada mencit model sepsis. [**MKB.** 2010;42(4):175–80].

Kata kunci: IgA, probiotik, sepsis

The Effect of Probiotic on IgA Level in Mice Model of Sepsis

Abstract

Probiotic is useful as immunomodulator and imunonutrition in patients with critical illness such as sepsis, but the mechanism is not entirely clear. This study was aimed to evaluate the effect of probiotic on serum IgA level in mice model of sepsis in dr. Moewardi Hospital/Faculty of Medicine, Universitas Sebelas Maret Surakarta period July 2009–2010. Eighteen males Balb/C mice were used and divided into three groups. Group I without treatment (negative control), group II which was mice model of sepsis inoculated with lipopolysaccharide (LPS)-E.coli (0.4 mg/mouse/ip), and group III was mice model of sepsis inoculated with E. coli LPS-and given probiotic. Serum IgA level was examined by ELISA. Data were analyzed statistically with one-way ANOVA. Serum IgA levels in normal mice group was 35.82±4.55 ng/mL. Exposing LPS-E. coli reduced the levels of serum IgA to 6.20±5.80 ng/mL. Administration of probiotics increased the serum IgA level to 65.07±34.97 ng/mL in mouse models of sepsis. Probiotics significantly increased serum IgA levels compared to mice model of sepsis group (65.07 ± 34.97 ng / mL vs. 6.20 ± 5.80 ng / mL, p = 0.000). In conclusion, administration of probiotics can increase the levels of serum IgA in mice model of sepsis. [**MKB.** 2010;42(4):175–80].

Key words: IgA , probiotic, sepsis