Pengaruh pemberian fortifikan fe fumarat dalam susu kedelai terhadap kadar zat besi plasma darah tikus (rattus norvegicus l.) jantan galur sprague-dawley = The Effect of fe fumarate fortificant addition in soy milk intake on plasma iron concentration in male sprague-dawley rats (rattus norvegicus l.)

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Abstrak

Telah dilakukan penelitian yang bertujuan untuk mengetahui pengaruh pemberian fortifikan Fe fumarat dalam susu kedelai terhadap kadar zat besi plasma darah tikus (Rattus norvegicus L.) jantan galur Sprague-Dawley. Metode penelitian menggunakan Rancangan Acak Lengkap (RAL), terdiri atas 25 ekor tikus putih jantan yang dibagi ke dalam 5 kelompok perlakuan, yaitu KK 1 yang diberi larutan CMC 0,5%; KK 2 yang diberi larutan CMC 0,5% dan susu kedelai tanpa fortifikan; dan KP 1, 2, dan 3 yang diberi larutan CMC 0,5% dan susu kedelai dengan fortifikan Fe fumarat dosis 1,35 mg Fe/ kgBB, 2,7 mg Fe/ kg BB, dan 5,4 mg Fe/ kgBB selama 21 hari berturut-turut. Pengambilan darah dilakukan pada hari ke-0 dan setelah pencekokan hari ke-21. Darah dipreparasi menggunakan destruksi basah lalu ditentukan kadar zat besinya dengan AAS (Atomic Absorption Spectrophotometer). Hasil uji ANAVA satu arah (P < 0,05) menunjukkan pengaruh nyata pemberian fortifikan Fe fumarat dalam susu kedelai terhadap kadar zat besi antar kelompok perlakuan. Peningkatan kadar zat besi tertinggi terjadi pada KP 1 yaitu sebesar 27,90% terhadap KK 1 dan 17,49% terhadap KK 2.
<hr>The effect of Fe fumarate fortificant addition in soy milk intake on plasma iron concentration of male Sprague-Dawley rats (Rattus norvegicus L.) had been studied. By using Complete Random Design (CRD), twenty five rats were divided into five groups, consist of normal control group (KK 1) which was administered with CMC 0.5% solution, treatment control group (KK 2) which was administered with CMC 0.5% solution and unfortified soy milk, and three treatment groups which were administered with soy milk added with fortificant Fe fumarate 1.35 mg Fe/kgbw (KP 1); 2.7 mg Fe/kgbw (KP 2); and 5.4 mg Fe/kgbw (KP 3). All of the five groups were treated for consecutive 21 days. The plasma iron concentration was measured by Atomic Absorption Spectrophotometer (AAS). One way ANOVA test and post-hoc LSD test (P < 0.05) showed significant effect of fortificant Fe fumarate addition in soy milk intake on plasma iron concentration in all treatment groups. The highest increase of plasma iron concentration was detected on KP 1, which is 27.90% to KK 1 and 17.49% to KK 2.