Uji potensi madu PS (Pollen Substitute) sebagai penurun kadar glukosa darah mencit (Mus musculus L.) jantan galur DDY yang diinduksi aloksan = Potential hypoglycemic effect test of honey PS (Pollen Substitute) on alloxan induced male DDY mice Mus musculus L.

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Abstrak

Telah dilakukan penelitian yang bertujuan untuk mengetahui potensi madu PS (Pollen Substitute) sebagai penurun kadar glukosa darah puasa dan post-prandial mencit (Mus musculus L.) jantan galur DDY. Dua puluh empat ekor mencit jantan dibagi ke dalam 4 kelompok hewan uji, yaitu kelompok kontrol normal (KK1) yang diberikan pakan standar dan akuades, kelompok kontrol perlakuan (KK2) yang diberikan aloksan dan akuades, dan 2 kelompok perlakuan (KP1 dan KP2) yang diberikan aloksan serta madu PS 10% dan 20%selama 14 hari berturut-turut. Pengukuran kadar glukosa darah dilakukan pada awal (t0) dan akhir penelitian (t14)dengan menggunakan glukometer. Hasil uji anava satu arah (P<0,05) menunjukkan adanya pengaruh nyata pemberian madu PS terhadap kadar glukosa darah semua hewan uji. Hasil uji LSD (P<0,05) menunjukkan bahwa kadar glukosa darah KP2 tidak berbeda nyata dengan KK1. Penurunan kadar glukosa darah puasa dan post-prandialKP2 secara berturut-turut mencapai 42,5% dan 39,75%.Berdasarkan hasil tersebut, maka dapat disimpulkan bahwa pemberian madu PS 20% dapat menurunkan kadar glukosa darah mendekati normal (mengacu pada KK1).

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The study has been conducted to know the hypoglycemic effect of PS (Pollen Susbtitute) honey administration on fasting and post-prandial blood glucose level of male-DDY mice (Mus musculus L.). Twenty four male mice were divided to four groups consisting of normal control group (KK1) which was administered with neither alloxan or PS honey; treatment control group (KK2) which was administered with alloxan; and two treatment groups (KP1 and KP2) which was administered with alloxan and PS honey 10% and 20%, respectively, within 14 consecutive days. Fasting (16 hours) and post-prandial (2 hours after eating) blood glucose level were measured using glucometer. One-way anova test (P<0,05) showed that fasting and post-prandial blood glucose level decreased significantly. Least significant difference (LSD) (P<0,05) test showed that only the administration of 20% PS honey (KP2) cause the significant decrease in both fasting and post-prandial blood glucose level. According to normal control group (KK1), the blood glucose level of KP2 has been reduced to its normal range. It is concluded that administration of 20% PS honey significantly lowered blood glucose level (fasting and post-prandial).