INTISARI

Anemia hampir selalu ditandai dengan kadar hemoglobin yang rendah. Penyebab tersering oleh karena kekurangan zat besi yang diserap tubuh. Walaupun konsumsi bahan makanan dianggap cukup zat besi, tetapi penderita anemia masih banyak akibat kurangnya pengetahuan masyarakat tentang adanya zat antigizi dalam makanan tersebut.

Makanan dengan bahan baku kedelai, banyak digemari masyarakat, seperti tempe. Berdasar penelitian terdahulu, menunjukkan bahwa konsumsi tempe mampu meningkatkan kadar hemoglobin darah. Berbeda dengan kedelai, tempe terbuat karena proses fermentasi sehingga merubah sifat-sifat kedelai. Perubahan ini menyebabkan perbedaan senyawa terkandung dalam tempe sehingga keduanya memiliki kadar zat antigizi yang berbeda dalam pengaruhnya terhadap kadar hemoglobin darah.

Penelitian ini bertujuan untuk mencari korelasi antara pemberian jus kedelai terhadap kadar hemoglobin yang merupakan salah satu indikator anemia yang dilakukan pada tikus putih betina tua.

Metode yang dilakukan pada penelitian ini adalah eksperimental dengan *pre post test control group design*. Pelaksanaan penelitian ini dilakukan di Unit Penelitian Hewan Percobaan selama 28 hari dengan pemberian bahan uji sekali dalam sehari. Pemeriksaan kadar hemoglobin darah dilaksanakan pada awal dan akhir perlakuan di Laboratorium Patologi Klinik Fakultas Kedokteran Universitas Gadjah Mada.

Rerata kadar hemoglobin darah tikus putih betina tua yang diperoleh pada kelompok kontrol, awal perlakuan 10,2 ± 0,43 mmol/L dan akhir perlakuan 9,2 ± 0,29 mmol/L. Sedangkan pada kelompok jus kedelai, awal perlakuan 10,2 ± 0,21 mmol/L dan akhir perlakuan 9,3 ± 0,16 mmol/L.

Analisis data dilakukan dengan uji *Oneway Anova* dan *T-Test* didapatkan hasil yang signifikan ($p<0,05$) yaitu berupa penurunan kadar hermoglobin pada darah hewan coba. Dengan hasil ini maka dapat kita simpulkan bahwa konsumsi jus kedelai menurunkan kadar hemoglobin darah tikus betina tua.

Kata kunci: kedelai, zat antigizi, kadar hemoglobin

ABSTRACT

Anemia is almost always signed by the low level of hemoglobin. It is caused by lacking of iron substance absorbed by the body. Although the food consumption is sometimes considered to have enough iron substance, there are still many people who suffer from anemia because the limited knowledge of people about the substance of anti-nutrition in the food.

Food with row material of soybean usually become a favorite food in the society for example, *tempe*. Based on the previous researches, the consumption of *tempe* can increase the hemoglobin level in the blood. Different from soybean, *tempe* is made from soybean through fermentation process that make the natures of soybean change. This change causes the difference of the content substance of *tempe* so both possess different anti-nutrition levels in influencing the hemoglobin level in the blood.

This study aims at finding the correlation between consumption of soybean juice and the hemoglobin level that comprises of one anemia indicator that had been experimented on old white female mice.

The method applied in this study is experimental with post-test control group design. The study was carried out in the Animal Experimental Research Unit for 28 days by giving the experimental substance once in a day. The examination of the hemoglobin level in the blood was administered at the beginning and at the end of the treatment in the Laboratory of Pathology Clinic, Medical Faculty of Gadjah Mada University of Yogyakarta.

The averages of hemoglobin level in the blood of white female mice from the control group are $10,2 \pm 0,43$ mmol/L at the beginning of the experiment and $9,2 \pm 0,29$ mmol/L at the end of the treatment. Meanwhile in the group that got treatment with soybean juice, the average in the beginning is $10,2 \pm 0,21$ mmol/L and at the end is $9,3 \pm 0,16$ mmol/L.

The data analyses with One Way Anova and T-test show significant findings ($p<0,05$) i.e. the decrease of hemoglobin level in the blood of animal. Based on this finding, then, it can be inferred that the consumption of soybean juice decrease the hemoglobin level in the blood of old white female mice.

Keywords: soybean, anti-nutrition substance, hemoglobin level