

ABSTRACT

Holifatur Rosidah, B4109242. Department of Health Studies Program Clinical Nutrition. EFFECT OF CARROT JUICE TO REDUCE BLOOD SUGAR LEVELS DURING MICE HYPERGLYCEMIK. Supervising Commission, Chairman: Agustina Endah W. S.Sos. Kes, Members: Ir. Heri Warsito, MP.

BACKGROUND: According to the World Health Organization (WHO) in 1998, an estimated number of diabetics in Indonesia will increase by 250% of the 5 million population in 1995 to 12 million residents by 2025. Commission diabetic World Health Organization (WHO) recommends traditional methods for the treatment of diabetes to be studied further. Pectin contains in carrots, which is one type of food fiber that is soluble in water (*soluble dietary fiber*). Water-soluble fiber consists of pectin and gum, which has a hypoglycemic effect due to slow gastric emptying, shorten transit time in the gastrointestinal tract and reduce absorption of glucose (Almatsier, 2001). This study aimed to determine the effect of carrot juice in lowering blood sugar levels of mice hyperglykemic.

RESEARCH METHODOLOGY: This was an experimental laboratory study with pre and post test controlled group design conducted in the Laboratory of Biomedical Faculty of Dentistry (FKG), State University of Jember. 24 mice were randomly divided into four treatment groups, namely the positive control, P1, P2 and P3. The study was conducted over 33 days, previously adapted for a week in advance with a standard feed.

RESULTS: The results obtained in the pre-test statistical test results obtained at $p = 0.657$ which shows that $p > 0.05$, while the post-test obtained $p = 0.002$ which indicates that $p < 0.05$. In the paired t-test statistic tests for each treatment is the positive control obtained t-test Sig. (2-tailed) 0.222 whose value is > 0.05 and the value is -1.396 $t < t$ table 2.610; treatment carrot juice at a dose of 0.4 ml / day obtained t-test Sig. (2-tailed) 0.095 whose value is > 0.05 and the value 2.058 $t < t$ table 2.610; treatment carrot juice at a dose of 0.5 ml / day obtained t-test Sig. (2-tailed) 0.084 whose value is > 0.05 and the value 2.150 $t < t$ table 2.610 and the antidiabetic drug metformin treatment obtained t-test Sig. (2-tailed) 0.000 whose value < 0.05 and 8.213 t whose value $> t$ table 2.610. To the percentage decrease in the blood sugar levels, decrease consumption of carrot juice at a dose of 0.4 ml / day of 2.4%, decrease consumption of carrot juice at a dose of 0.5 ml / day amounted to 4.17% and taking blood sugar lowering medications (metformin) The blood sugar levels can be decreased by 39.78%.

CONCLUSIONS: The provision of antidiabetic drug metformin is more effective when compared with the treatment of carrot juice can inside lower blood glucose.

Keywords: alloxan, Blood Sugar Levels and Metformin.