

**PENGARUH PEMBERIAN BUBUR INSTAN CAMPURAN LABU  
KUNING (*Cucurbita moschata* D) DAN PATI GARUT (*Maranta  
arundinaceae* L) TERHADAP KADAR GLUKOSA DAN INSULIN TIKUS  
DIABETES MELLITUS TIPE 2**

**INTISARI**

Diabetes mellitus tipe 2 merupakan gangguan metabolik ganda yang progresif yaitu resistensi insulin dan gangguan sekresi insulin oleh sel beta pankreas.. Labu kuning (*Cucurbita moschata* D) yang memiliki antioksidan berupa beta karoten yang terbukti ilmiah mampu mengontrol gula darah. Pati garut (*Maranta arundinaceae* L) memiliki kandungan serat yang tinggi yang mampu dalam menurunkan kadar glukosa darah. Tujuan penelitian ini adalah untuk mengetahui pengaruh pemberian bubur instan campuran labu kuning dan pati garut terhadap tikus diabetes tipe 2. Faktor perlakuan pada penelitian ini adalah kelompok kontrol tikus sehat, kelompok kontrol diabetes tipe 2 dan perlakuan bubur instan campuran labu kuning dan pati garut sebanyak 10%. Rancangan penelitian menggunakan “*Post test only control group design*”. Analisis yang dilakukan meliputi kadar glukosa darah, insulin serta penimbangan berat badan setiap minggu. Analisis kadar glukosa darah menggunakan GOD-PAP. Analisis kadar insulin menggunakan metode ELISA. Hasil penelitian terdapat penurunan kadar glukosa darah pada perlakuan bubur instan campuran labu kuning dan pati garut 10% sebelum intervensi dengan rerata 267,31 mg/dL menurun dengan rerata 146,37 mg/dL. Pada kadar insulin, terjadi kenaikan yang signifikan pada kelompok perlakuan bubur instan labu kuning dan pati garut 10% disbanding kelompok kontrol diabetes mellitus tipe 2. Nilai rerata kadar insulin kelompok sehat, kelompok diabetes tipe 2 dan perlakuan bubur instan adalah 560,30; 407,60; 488,82 (pg/mL). Pemberian bubur instan campuran labu kuning dan pati garut 10% mampu menurunkan glukosa darah puasa dan meningkatkan kadar insulin tikus sindrom metabolik.

**Kata Kunci :** antioksidan, bubur instan, kadar glukosa, kadar insulin.

**THE EFFECT OF PUMPKIN (*Cucurbita moschata D*) AND ARROWROOT (*Marantha arundinaceae L*) STARCH-BASED INSTANT PORRIDGE ON GLUCOSE LEVEL AND INSULIN IN TYPE 2 DIABETES MELLITUS RAT MODEL**

**ABSTRACT**

Type 2 diabetes mellitus is a dual metabolic syndrome which is caused by insulin resistance and the dysfunction of insulin secretion by pancreatic beta cells. Pumpkin (*Cucurbita moschata D*) has beta carotene as an antioxidant which is scientifically proven to be able to control blood glucose levels. Arrowroot (*Marantha arundinaceae L*) starch has a high fibre content that reduces blood glucose levels. The purpose of this study was to know the effect of pumpkin and arrowroot starch-based instant porridge in type 2 diabetes mellitus rats. There were three groups of rats in the experiments which consist of healthy control rats group, rats with type 2 diabetes mellitus as diseased control group, and rats treated with 10% instant porridge group. The experimental design was carried out using the post-test only to the control group design. The glucose fasting levels, insulin levels and body weight measurements were analyzed from the samples. Glucose fasting levels analysis was performed by using GOD-PAP method and the insulin levels using ELISA method. The results show there is a decrease of blood glucose levels on rats treated with 10% instant porridge from 267,31 mg/dL to 146,37 mg/dL. There is a significant difference on insulin levels between the treatment group and type 2 diabetes mellitus group. The mean value of insulin levels in the healthy control groups, the diseased control groups, and the treatment groups are 560,30; 407,60; 488,82 (pg/mL). The application of 10% pumpkin and arrowroot starch-based instant porridge decrease glucose fasting levels and increase insulin levels in type 2 diabetes mellitus rats.

**Keywords :** antioxidants, blood glucose, insulin, instant porridge.