

## **Gambaran Hasil Cystatin C pada Penderita Diabetes Melitus**

Ayu Novita Sari<sup>1</sup>, Budi Santosa<sup>2</sup>, Andri Sukeksi<sup>3</sup>

1. Program Studi DIII Analis Kesehatan Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang
2. Laboratorium Patologi Klinik Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang

### **ABSTRAK**

Diabetes Melitus merupakan penyakit metabolism dengan karakteristik hiperglikemia yang terjadi karena kelainan sekresi insulin, kerja insulin atau keduanya. Hiperglikemia kronik pada diabetes dapat menyebabkan gangguan ginjal yang disebut Nefropati Diabetik. Nefropati Diabetik pada penderita DM dipengaruhi oleh beberapa faktor antara lain tipe DM, jenis kelamin, usia, dan lama menderita DM. Salah satu pemeriksaan uji fungsi ginjal yang terbaru adalah Cystatin C. Cystatin C merupakan protein berat molekul rendah yang disintesis oleh semua sel berinti dan ditemukan di berbagai cairan tubuh manusia. Cystatin C merupakan penanda endogen yang mendekati ideal. Tujuan Penelitian ini adalah untuk mengetahui gambaran hasil Cystatin C pada penderita Diabetes Melitus berdasarkan tipe DM, jenis kelamin, usia dan lama DM.

Jenis penelitian adalah penelitian deskriptif. Penelitian dilakukan di Laboratorium Klinik PRODIA MT.Haryono No 882, Semarang pada bulan Oktober – Desember 2016. Sampel diambil secara *Consecutive Sampling* dan didapatkan sampel sebanyak 38 orang. Sampel diperiksa dengan menggunakan metode *Particle-enhanced Nephelometric Immunoassay (PENIA)*.

Berdasarkan pemeriksaan kadar Cystatin C pada penderita Diabetes Melitus di Laboratorium Klinik PRODIA Semarang sebanyak 38 responden didapat 12 orang (32%) dengan hasil normal dan 26 orang (68%) dengan hasil tinggi (lebih dari nilai normal).

**Kata kunci :** Diabetes Melitus, Nefropati Diabetik, Cystatin C

## **Overview of the Results of Cystatin C in Patients with Diabetes Mellitus**

Ayu Novita Sari<sup>1</sup>, Budi Santosa<sup>2</sup>, Andri Sukeksi<sup>3</sup>

1. Three years Diploma of Health Analyst Study Program, Nursing and Health Faculty , Muhammadiyah University of Semarang
2. Clinical Pathology Laboratory , Nursing and Health Faculty , Muhammadiyah University of Semarang

### **ABSTRACT**

Diabetes Mellitus is a metabolic disease with characteristics of hyperglycemia that occurs due to abnormalities in insulin secretion, insulin action or both. Chronic hyperglycemia in diabetes leads to kidney disease called nephropathy diabetic. Nephropathy diabetic in people with diabetes is influenced by several factors such as the type of diabetes, sex, age, and duration of diabetes mellitus. One examination of renal function tests of the newest is cystatin C. Cystatin C is a low molecular weight protein that is synthesized by all nucleated cells and are found in a variety of human body fluids. Cystatin C is a marker of endogenous nearly ideal. The purpose of this study is to describe the results of Cystatin C in patients with diabetes mellitus based on the type of diabetes, sex, age and duration of diabetes.

The research was a descriptive . The study was conducted in the Clinical Laboratory PRODIA MT.Haryono No. 882, Semarang in October to December 2016. The sample was taken Consecutive Sampling and obtained a sample of 38 people. Samples were examined using methods Particle-enhanced Nephelometric Immunoassay (Penia).

Based on the examination of Cystatin C levels in patients with diabetes mellitus in the Clinical Laboratory PRODIA Semarang as many as 38 respondents obtained 12 votes (32%) with normal results and 26 (68%) in high yield (more than normal value).

**Keywords :** Diabetes Mellitus, Diabetic Nephropathy, Cystatin C