The correlation between hba1c and neuropathy disability score in type 2 diabetes

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Abstrak

Background: World Health Organization (WHO) estimates the incidence of type 2 diabetes in Indonesia would increase to 21.3 million in 2030. Diabetes has a chronic complications, including peripheral neuropathy. The degree of neuropathy was assessed through the Neuropathy Disability Score (NDS). In contrast, haemoglobin A1c is glycated haemoglobin used to monitor the glucose levels of diabetic patients in the last 2 or 3 months. The relationship between HbA1c and diabetic neuropathy carried out by electrodiagnosis showed that HbA1c and age were the main predictors of diabetic neuropathy. However, electrodiagnosis is still considered costly. Research is needed to determine the relationship between HbA1c and NDS to reduce morbidity. This study aims to determine the relationship between the severity of diabetic neuropathy as measured by NDS with HbA1c level in type 2 Diabetes. Methods: this cross-sectional study involved correlation analysis.. The collected data were analyzed with the Spearman correlation test. Results: approximately 56 diabetic patients were involved in this study. Patients were recruited from the internal medicine outpatient ward from the West Nusa Tenggara General Hospital. The mean age was 59.55 (SD 9.48) with 57.1% female; the median duration of diabetes was 5.5 years. The median NDS score is 7.5 and the median HbA1c value is 8.65. Spearman correlation analysis shows a correlation coefficient of 0.487 with a value of p = 0.000. Conclusion: there is a relationship between HbA1c level and the severity of diabetic neuropathy in Type 2 DM.