

ABSTRAK

HUBUNGAN KADAR GLUKOSA DARAH DAN TINGKAT KEPATUHAN PERAWATAN ULKUS DENGAN KEPARAHAN GANGREN DI (RUWAT) RUMAH LUKA SIDOARJO

Diabetes Mellitus berisiko menimbulkan komplikasi ulkus diabetikum yang dapat berkembang menjadi gangren jika tidak ditangani dengan tepat. Penelitian ini bertujuan untuk mengetahui hubungan kadar glukosa darah dan tingkat kepatuhan perawatan ulkus dengan keparahan gangren di Rumah Luka Sidoarjo (RUWAT). Penelitian kuantitatif dengan desain analitik observasional studi kohort ini melibatkan 36 responden yang dipilih menggunakan teknik *consecutive sampling*. Instrumen pengumpulan data meliputi lembar observasi derajat gangren (skala Wagner), glukometer/pemeriksaan laboratorium GDA, dan kuesioner kepatuhan perawatan ulkus. Derajat keparahan gangren dipengaruhi oleh berbagai faktor multifaktorial, meliputi kontrol kadar glukosa darah, lama menderita Diabetes Mellitus, tingkat kepatuhan diet diabetes, kepatuhan perawatan luka (*dressing*), kondisi neuropati dan angiopati, tingkat pengetahuan serta edukasi kesehatan, serta aktivitas fisik dan mobilisasi pasien. Analisis data dilakukan secara univariat, bivariat dengan uji korelasi *Spearman's Rho*, serta multivariat menggunakan *Ordinal Logistic Regression*. Sebagian besar responden memiliki kadar GDA tidak terkontrol (61,1%), kepatuhan perawatan ulkus kategori cukup (38,9%), dan derajat keparahan gangren Wagner 2 / luka dalam (22,2%). Hasil uji bivariat menunjukkan adanya hubungan yang sangat kuat dan signifikan antara kadar GDA dengan keparahan gangren ($r = 0,972$; $p = 0,000$), serta hubungan yang sangat kuat berarah negatif antara kepatuhan perawatan ulkus dengan keparahan gangren ($r = -0,977$; $p = 0,000$). Hasil analisis regresi logistik ordinal menunjukkan bahwa secara parsial variabel GDA ($p = 0,184$) dan kepatuhan ($p = 0,059$) tidak berpengaruh signifikan secara mandiri, mengindikasikan bahwa kedua variabel berinteraksi secara simultan bersama faktor vaskular dan imunitas sistemik dalam memengaruhi derajat keparahan luka. Pengendalian kadar glukosa darah yang terkontrol dan peningkatan kepatuhan perawatan ulkus secara signifikan berhubungan dengan penurunan derajat keparahan gangren. Intervensi keperawatan yang komprehensif mencakup manajemen glikemik yang ketat dan edukasi perawatan luka modern secara konsisten mutlak diperlukan untuk mencegah komplikasi gangren berat dan risiko amputasi.

Kata Kunci: Kadar Glukosa Darah, Kepatuhan Perawatan Ulkus, Keparahan Gangren, Diabetes Mellitus, Skala Wagner.

ABSTRACT

THE CORRELATION BETWEEN BLOOD GLUCOSE LEVELS AND ULCER CARE COMPLIANCE WITH GANGRENE SEVERITY AT RUMAH LUKA SIDOARJO (RUWAT)

Diabetes Mellitus carries a high risk of developing diabetic ulcer complications, which can progress to gangrene if not properly managed. This study aims to determine the correlation between blood glucose levels and ulcer care compliance with the severity of gangrene at Rumah Luka Sidoarjo (RUWAT). This quantitative study with an observational analytic cohort design involved 36 respondents selected using consecutive sampling techniques. Data collection instruments included observation sheets for gangrene severity (Wagner scale), glucometers/RBG laboratory tests, and ulcer care compliance questionnaires. Based on theoretical literature, the severity of gangrene is influenced by various multifactorial factors, including blood glucose control, duration of Diabetes Mellitus, compliance with diabetic diet, wound care compliance (dressing), neuropathy and angiopathy status, health education and knowledge levels, as well as physical activity and *mobilization*. Data were analyzed univariately, bivariately using Spearman's Rho correlation test, and multivariately using Ordinal Logistic Regression. The majority of respondents had uncontrolled RBG levels (61.1%), moderate ulcer care compliance (38.9%), and Wagner grade 2 / deep ulcer gangrene severity (22.2%). Bivariate test results showed a very strong and significant correlation between RBG levels and gangrene severity ($r = 0.972$; $p = 0.000$), as well as a very strong negative correlation between ulcer care compliance and gangrene severity ($r = -0.977$; $p = 0.000$). Ordinal logistic regression analysis results showed that partially, the RBG variable ($p = 0.184$) and compliance ($p = 0.059$) did not have a significant independent effect, indicating that both variables interact simultaneously with vascular factors and systemic immunity in influencing wound severity. Controlled blood glucose management and increased ulcer care compliance are significantly associated with a decrease in gangrene severity. Comprehensive nursing interventions including strict glycemic management and consistent modern wound care education are essential to prevent severe gangrene complications and the risk of amputation.

Keywords: *Blood Glucose Levels, Ulcer Care Compliance, Gangrene Severity, Diabetes Mellitus, Wagner Scale*