

## ABSTRAK

**Latar Belakang:** Diabetes melitus tipe 2 (DMT2) merupakan penyakit metabolik kronis yang ditandai dengan hiperglikemia akibat disfungsi sel- $\beta$  pankreas dan resistensi insulin. Ketidakstabilan kadar glukosa meningkatkan risiko komplikasi, termasuk ulkus kaki diabetik yang menyebabkan pasien rentan terhadap infeksi. Jika tidak segera ditangani, ulkus diabetik dapat menyebabkan penyebaran infeksi berat dan kerusakan jaringan permanen. Amputasi diperlukan untuk mencegah penyebaran infeksi. Namun, amputasi memiliki komplikasi berat yakni mortalitas. Penelitian ini akan menganalisis amputasi sebagai prediktor mortalitas.

**Tujuan:** Mengetahui amputasi dapat menjadi prediktor mortalitas  $\leq 7$  hari pada pasien DMT2 dengan ulkus diabetik di RSUP Dr. Sardjito Yogyakarta.

**Metode:** Penelitian kohort retrospektif dengan populasi pasien ulkus kaki diabetik yang melakukan rawat inap dari registri rekam medis di RSUP Dr. Sardjito pada Januari 2018–Desember 2023. Variabel independen adalah amputasi dan variabel dependen adalah mortalitas. Analisis bivariat menggunakan uji chi-square menilai hubungan amputasi terhadap mortalitas beserta komorbidnya. Analisis multivariat menggunakan regresi logistik menilai variabel demografi dan komorbiditas terhadap risiko mortalitas.

**Hasil:** Amputasi menurunkan risiko mortalitas  $\leq 7$  hari pada pasien DMT2 dengan ulkus kaki diabetik sebesar 72% ( $p = <0,001$ ; OR = 0,287). Tindakan amputasi yang dilakukan tepat waktu berpotensi mencegah progresi penyebaran infeksi dan komplikasi sistemik yang lebih berat.

**Kesimpulan:** Amputasi menurunkan risiko mortalitas  $\leq 7$  hari pada pasien DMT2 dengan ulkus diabetik di RSUP Dr. Sardjito Yogyakarta.

**Kata Kunci:** Diabetes mellitus tipe 2 (DMT2), ulkus kaki diabetik, amputasi, mortalitas.

## ***ABSTRACT***

**Background:** Type 2 diabetes mellitus (T2DM) is a chronic metabolic disease characterized by hyperglycemia due to pancreatic  $\beta$ -cell dysfunction and insulin resistance. Instability of blood glucose levels increases the risk of complications, including diabetic foot ulcers, which make patients more susceptible to infection. If not treated promptly, diabetic ulcers can lead to the spread of severe infection and permanent tissue damage. Amputation is required to prevent the spread of infection. However, amputation carries a serious complication, namely mortality. This study will analyze amputation as a predictor of mortality.

**Objective:** This study is aimed to assess whether amputation can be a predictor of mortality  $\leq 7$  days in patients with DMT2 and diabetic ulcers in RSUP Dr. Sardjito Hospital Yogyakarta.

**Method:** This was a retrospective cohort study involving a population of hospitalized patients with diabetic foot ulcers, using data from the medical record registry at RSUP Dr. Sardjito from January 2018 to December 2023. The independent variable was amputation, and the dependent variable was mortality. Bivariate analysis using the chi-square test was performed to assess the association between amputation and mortality, along with its comorbidities. Multivariate analysis using logistic regression was conducted to evaluate demographic variables and comorbidities in relation to the risk of mortality.

**Result:** Amputation reduces the  $\leq 7$ -day mortality risk in patients with type 2 diabetes mellitus (T2DM) and diabetic foot ulcers by 72% ( $p < 0.001$ ; OR = 0.287). Timely amputation has the potential to prevent the progression of infection spread and more severe systemic complications.

**Conclusion:** Amputation reduces the  $\leq 7$ -day mortality risk by 72% in patients with type 2 diabetes mellitus (T2DM) and diabetic ulcers at Dr. Sardjito General Hospital, Yogyakarta.

**Keywords:** Type 2 diabetes mellitus (T2DM), diabetic foot ulcer, amputation, mortality