

Faktor risiko lama rawat diabetic foot ulcer dengan negative pressure wound therapy di RS dr. Cipto Mangunkusumo = Risk Factors that influence Hospital length of stay in Diabetic Foot Ulcer with Negative Pressure Wound Therapy at RS. dr. Cipto Mangunkusumo

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Abstrak

Latar belakang: Diperkirakan sekitar 15% penderita diabetes akan mengalami diabetic foot ulcer (DFU) dalam masa hidupnya. Negative Pressure Wound Therapy (NPWT) terbukti lebih efektif dibandingkan dengan perawatan konvensional. NPWT menciptakan lingkungan luka yang lembab, peningkatan aliran darah lokal dan merangsang jaringan granulasi sehingga mempercepat penyembuhan luka. Penelitian ini dilakukan untuk mengetahui faktor risiko yang memengaruhi lama rawat DFU dengan NPWT.

Metode Penelitian: Penelitian ini merupakan studi retrospektif dengan desain cross sectional analitik pada 105 subjek yang dirawat pada Januari 2016 sampai Desember 2018 di RS dr. Cipto Mangunkusumo. Karakteristik dan demografi pasien dan faktor risiko diambil dari rekam medik. Durasi perawatan dari aplikasi pertama NPWT hingga luaran sebagai hasil, kemudian dianalisis terhadap faktor risiko yang memengaruhinya.

Hasil Penelitian: Lama rawat DFU dengan NPWT adalah $19,9 \pm 19,3$ hari. Faktor risiko yang mempengaruhi lama rawat adalah riwayat ulkus ($r = 0,01$; $p = 0,034$), kedalaman luka ($r = 0,292$; $p = 0,003$), Hb ($r = 0,05$; $p = 0,039$), HbA1c ($r = 0,06$; $p = 0,033$), albumin ($r = 0,06$; $p = 0,017$), PCT ($r = 0,10$; $p = 0,035$), dan lama menderita DM ($r = 0,193$; $p = 0,009$).

Kesimpulan: Penelitian ini menunjukkan bahwa lama rawat DFU dengan NPWT dipengaruhi oleh faktor sistemik (lama menderita DM, Hb, HbA1c, albumin, dan PCT) dan faktor lokal (riwayat ulkus sebelumnya dan kedalaman luka). Kedalaman luka merupakan faktor yang paling berhubungan positif terhadap lama perawatan DFU pasca NPWT ($r = 0,292$, $p = 0,003$). Intervensi pada faktor risiko yang dapat diperbaiki sebelum penggunaan NPWT patut dilakukan untuk memaksimalkan penggunaan NPWT dan mengurangi lama perawatan.

.....Background: It is estimated that around 15% of diabetic patients will experience diabetic foot ulcer (DFU) in their lifetime. Negative Pressure Wound Therapy (NPWT) is proven to be more effective than conventional treatments. NPWT creates a moist wound environment, increases local blood flow and stimulates tissue granulation thereby accelerating wound healing. This study was conducted to determine the risk factors that affect the length of stay of DFU with NPWT. Knowing this risk factors may be helpful for optimizing management strategy.

Methods: This research is a retrospective study with a cross-sectional analytic design in 105 subjects treated in January 2016 to December 2018 at RS. dr. Cipto Mangunkusumo. Patient characteristics, demographics and risk factors were taken from medical records. The length of stay of the patient from the first application of NPWT to its outcomes was the main result, then the correlation to the risk factors that influence it was analyzed.

Results: The length of stay of DFU with NPWT was 19.9 ± 19.3 days. Risk factors affecting the length of stay were history of ulcers ($r = 0.01$; $p = 0.034$), wound depth ($r = 0.292$; $p = 0.003$), Hb ($r = 0.05$; $p =$

0.039), HbA1c ($r = 0.06$; $p = 0.033$), albumin ($r = 0.06$; $p = 0.017$), PCT ($r = 0.10$; $p = 0.035$), and duration of DM ($r = 0.193$; $p = 0.009$).

Conclusions: This study showed that the length of stay of DFU with NPWT was influenced by systemic factors (duration of DM, Hb, HbA1c, albumin, and PCT) and local factors (history of previous ulcers and wound depth). The depth of the wound was the most positively related factor to the length of stay in DFU post NPWT ($r = 0.292$; $p = 0.003$). Interventions on the risk factors that can be corrected before the application of NPWT may amplify the result of NPWT and reduce the length of treatment.