

## INTISARI

### HUBUNGAN MIKROANGIOPATI DM DENGAN ANGKA KEJADIAN SEPSIS PADA PASIEN DM TIPE 2 YANG TERINFEKSI PNEUMONIA KOMUNITAS DI RSUP DR. SARDJITO

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**Latar Belakang:** Mikroangiopati merupakan komplikasi sistemik DM tipe 2 terjadi di berbagai organ. Mikroangiopati yang terjadi di paru akan menurunkan fungsi dan imunitas. Kondisi ini akan meningkatkan risiko dan kerentanan terhadap infeksi pneumonia. Sehingga penderita DM tipe 2 dengan komplikasi mikroangiopati yang terinfeksi pneumonia lebih berisiko menjadi infeksi berat dan berkembang menjadi sepsis.

**Tujuan Penelitian:** Mengetahui hubungan mikroangiopati DM dengan angka kejadian sepsis pada pasien DM tipe 2 yang terinfeksi pneumonia komunitas di RSUP dr. Sardjito.

**Metode Penelitian:** Penelitian ini menggunakan metode *cross sectional* restrospektif, berlangsung selama 1 Januari 2021 - 30 Juni 2021. Pada pasien rawat inap di RSUP dr. Sardjito Yogyakarta antara periode Januari 2015 sampai Desember 2019. Subjek penelitian yaitu data rekam medis dengan diagnosis pneumonia komunitas dan DM tipe 2 yang memenuhi kriteria inklusi serta eksklusi. Dilakukan penilaian mikroangiopati dan atau tanpa mikroangiopati selanjutnya dilihat sepsis atau tidak sepsis. Dilakukan analisis bivariat dengan uji *chi square* dan dilanjutkan analisis multivariat uji regresi logistik untuk variabel perancu potensial.

**Hasil Penelitian:** Telah diperoleh 190 sampel penelitian. Sebanyak 78,4% mikroangiopati dan 21,6% non mikroangiopati. Pasien mikroangiopati yang mengalami sepsis 96,5% dan non mikroangiopati mengalami sepsis 3,5%. Hasil analisis bivariat mikroangiopati DM memiliki hubungan yang signifikan dengan kejadian sepsis dengan OR = 15,502 [95% CI 4,582-52,453, (P< 0,001)]. Hasil uji regresi logistik setelah menyesuaikan terhadap pengaruh variabel perancu potensial, mikroangiopati DM masih memiliki hubungan yang signifikan dengan kejadian sepsis OR 10,047 [95% CI 2,567-39,319 (P 0,001)].

**Kesimpulan:** Mikroangiopati DM memiliki hubungan terhadap angka kejadian sepsis pada pasien DM tipe 2 yang terinfeksi pneumonia komunitas.

Kata kunci: Pneumonia komunitas, DM tipe 2, Mikroangiopati DM, sepsis

## ABSTRACT

### THE RELATIONSHIP OF DIABETIC MICROANGIOPATHY WITH THE INCIDENCE OF SEPSIS IN TYPE 2 DM AND COMMUNITY ACQUIRED PNEUMONIA PATIENTS AT THE CENTRAL GENERAL HOSPITAL DR. SARDJITO

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**Background:** Microangiopathy is a systemic complication of type 2 diabetes. Microangiopathy in the lungs will reduce function and immune system. This condition will increase the risk and susceptibility to pneumonia infection. If type 2 DM patients with microangiopathy infected pneumonia are more at risk of developing severe infections and developing to sepsis.

**Objective:** To determine the relationship between diabetic microangiopathy and the incidence of sepsis in type 2 DM and community acquired pneumonia at the central general hospital dr. Sardjito.

**Methods:** This study used a cross sectional method, taking place from June 2021 to August 2021 at dr. Sardjito Hospital Yogyakarta. The subjects of this study were taken from medical records of patients suffering from community acquired pneumonia and type 2 DM from January 2015 to December 2019 and met the inclusion and exclusion criteria. An assessment of microangiopathy and or without microangiopathy was carried out and then seen whether it was septic or not septic. Bivariate analysis was performed with chi square test and followed by multivariate analysis with logistic regression test for potential confounding variables.

**Research Results:** 190 research samples have been obtained. A total of 78.4% diabetic microangiopathy and 21.6% non-microangiopathy. 96.5% of diabetic microangiopathy patients had sepsis and 3.5% of non-microangiopathic patients had sepsis. The results of the bivariate analysis of DM microangiopathy had a significant relationship with the incidence of sepsis OR = 15,502 [95% CI 4,582-52.453, (P<0.001)]. The results of the logistic regression test after adjusting for the effect of potential confounding variables, DM microangiopathy still had a significant relationship with the incidence of sepsis OR 10.047 [95% CI 2.567-39.319 (P 0.001)].

**Conclusion:** Diabetic microangiopathy has a relationship with the incidence of sepsis in type 2 DM and community acquired pneumonia patients.

Keywords: Community acquired pneumonia, Type 2 DM, Diabetic microangiopathy, Septic.