INTISARI

PERBEDAAN PROPORSI KEJADIAN GAGAL NAPAS HIPOKSEMIA BERDASARKAN STATUS MIKROANGIOPATI DIABETES PADA PENDERITA PNEUMONIA KOMUNITAS DAN DIABETES MELITUS TIPE 2 DI RAWAT INAP RUMAH SAKIT UMUM PUSAT DR. SARDJITO

Rendhy Wisnugroho Santoso[1], Sumardi[2], M. Robikhul Ikhsan[3]
[1]Peserta PPDS Ilmu Penyakit Dalam, [2]Sub Bagian Pulmonologi Ilmu Penyakit Dalam[2], [3]Sub Bagian Endokrin Metabolik Diabetes Ilmu Penyakit Dalam
Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan UGM/ RSUP Dr. Sardjito Yogyakarta

Latar belakang : Mikroangiopati merupakan komplikasi diabetes melitus (DM) tipe 2. Mikroangiopati dijumpai pada berbagai organ di antaranya retina, ginjal dan saraf. Adanya mikroangiopati di organ-organ tersebut mencerminkan mikroangiopati di paru-paru. Mikroangiopati di paru-paru diduga meningkatkan kejadian gagal napas pada subjek dengan DM tipe 2 yang menderita pneumonia komunitas.
Tujuan Penelitian : Mengetahui perbedaan proporsi kejadian gagal napas hipokesmia antara kelompok mikroangiopati diabetes dibandingkan dengan non mikroangiopati diabetes pada penderita pneumonia komunitas dan DM tipe 2.
Metode Penelitian : Penelitian ini menggunakan metode *cross sectional*, berlangsung selama Juni - Agustus 2021 di RSUP dr Sardjito Yogyakarta. Subjek penelitian dari data rekam medis pasien yang menderita pneumonia komunitas dan DM tipe 2 periode Januari 2015 - Desember 2019 dan memenuhi kriteria inklusi dan eksklusi. Subjek dilihat profil mikroangiopatinya sekaligus dilihat apakah menderita gagal napas atau tidak. Uji bivariat dilakukan untuk menilai beda proporsi mikroangiopati dan non mikroangiopati terhadap gagal napas. Analisis multivariat regersi logistik dilakukan untuk menilai pengaruh independen variabel-variabel terhadap gagal napas.
Hasil penelitian : Diperoleh 190 subjek yang menderita pneumonia kemunitas dan DM tipe 2. Proporsi kejadian gagal napas berdasarkan status mikroangiopati yaitu 60,4% pada kelompok mikroangiopati dan 12,2% pada kelompok non mikroangiopati dengan OR 10,983 (95% CI 4,076-29,598, p<0,001). Analisis multivariat menunjukkan mikroangiopati memiliki hubungan yang signifikan dengan kejadian gagal napas OR 3,955 (95% CI 1,094-14,297, p=0,036). Variabel lain yang berhubungan signifikan di dalam penelitian ini adalah jenis kelamin laki-laki (p=0,026), PPOK (p=0,049) dan sepsis (p<0,001).
Kesimpulan : Terdapat perbedaan proporsi kejadian gagal napas di antara mikroangiopati DM dibandingkan non mikroangiopati DM pada penderita pneumonia dan DM tipe 2.
Kata Kunci : *pneumonia komunitas, diabetes melitus (DM) tipe 2, mikroangiopati, gagal napas.*

ABSTRACT

DIFFERENCES IN THE PROPORTION OF HYPOXEMIA RESPIRATORY FAILURE BASED ON DIABETES MICROANGIOPATIC STATUS IN COMMUNITY ACQUIRED PNEUMONIA AND TYPE 2 DIABETES MELLITUS INPATIENT AT THE CENTRAL GENERAL HOSPITAL DR SARDJITO

Rendhy Wisnugroho Santoso[1], Sumardi[2], M. Robikhul Ikhsan[3]
[1]Resident of Internal Medicine, [2] Division of Pulmonology Department of Internal Medicine, [3]Division of Diabetes, Endocrinology, & Metabolic Diseases Department of Internal Medicine
Faculty of Medicine Public Health and
Nursing Gadjah Mada University/Dr.Sardjito Hospital Yogyakarta

Background : Diabetic microangiopathy is found in various organs including the retina, kidneys and nerves. The presence of microangiopathy in these organs reflects microangiopathy in the lungs. Microangiopathy in the lungs is thought to increase the incidence of respiratory failure in subjects with type 2 diabetes who suffer from community pneumonia.
Objective: To determine the difference in the proportion of hypoxemic respiratory failure between the diabetic microangiopathy group and the non-diabetic microangiopathy group in patients with community acquired pneumonia and type 2 diabetes.
Methods: This study used a cross sectional method, took place during June - August 2021 at Dr Sardjito Hospital, Yogyakarta. Research subjects from medical record data of patients suffering from community acquired pneumonia and type 2 DM for the period January 2015 - December 2019 and met the inclusion and exclusion criteria. Subjects were seen for their microangiopathic profile as well as whether they were suffering from respiratory failure or not. Bivariate test was conducted to assess the different proportion of microangiopathic and non-microangiopathic to respiratory failure. Multivariate logistic regression analysis was performed to assess the independent effect of variables on respiratory failure.
Result: There were 190 subjects suffering from community acquired pneumonia and type 2 diabetes. The proportion of respiratory failure based on microangiopathic status was 60.4% in the microangiopathic group and 12.2% in the non-microangiopathic group with OR 10,983 (95% CI 4.076-29.598, p<0.001). Multivariate analysis showed microangiopathy had a significant relationship with the incidence of respiratory failure OR 3,955 (95% CI 1.094-14.297, p=0.036). Other variables that were significantly related in this study were male gender (p=0.026), COPD (p=0.049) and sepsis (p<0.001).
Conclusion: There is a difference in the proportion of the incidence of respiratory failure between microangiopathic DM compared to non-microangiopathic DM in patients with community acquired pneumonia and type 2 diabetes.
Keywords: *community pneumonia, type 2 diabetes mellitus (DM), microangiopathy, respiratory failure.*