

## INTISARI

### HIPOALBUMINEMIA SEBAGAI FAKTOR RISIKO KEJADIAN PERITONITIS PADA PASIEN PENYAKIT GINJAL KRONIS DENGAN CONTINUOUS AMBULATORY PERITONEAL DIALYSIS DI RSUP DR. SARDJITO YOGYAKARTA

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**Latar Belakang:** Sebanyak 60% pasien yang menggunakan *Continuous Ambulatory Peritoneal Dialysis* (CAPD) akan memiliki setidaknya satu episode peritonitis pada tahun pertama. Berdasarkan *International Society for Peritoneal Dialysis* (ISPD) 2016, hipoalbuminemia mempengaruhi kejadian peritonitis pada pasien penyakit ginjal kronis yang menggunakan CAPD. Pentingnya albumin sebagai marker inflamasi serta semakin meningkatnya jumlah pengguna CAPD diperlukan untuk meningkatkan kewaspadaan terjadinya peritonitis.

**Tujuan:** Menganalisis hipoalbuminemia pada awal pemasangan CAPD sebagai faktor risiko peritonitis bakterial pada pasien penyakit ginjal kronis.

**Metode:** Penelitian ini menggunakan desain kasus kontrol berpasangan 1:2. Data diambil dari seluruh pasien pengguna CAPD sejak Januari 2011 hingga September 2019 di RSUP Dr.Sardjito Yogyakarta berdasarkan kriteria inklusi dan eksklusi. Sampel penelitian untuk kasus peritonitis sebanyak 81, dan kontrol sebanyak 162. Uji statistik menggunakan *Chi Square*, dan *Fisher exact*. Analisis data multivariat menggunakan regresi logistik.

**Hasil:** Jumlah pasien penyakit ginjal kronis dengan CAPD sejak Januari 2011 hingga September 2019 sebanyak 329 pasien dan diambil 243 untuk sampel penelitian. Kelompok usia 50-59 tahun adalah yang terbesar yaitu 46,9% , jenis kelamin pria mendominasi sebesar 63%. Pasien dengan pendidikan tinggi sebesar 51,0%, yang mengalami DM sebesar 36,2%. Subyek penelitian yang mengalami hipoalbuminemia (<3,5 g/dL) pada awal pemasangan CAPD sebesar 52,7% dan memiliki risiko terjadinya peritonitis bakterial dengan OR 13,079. Jenis kuman terbanyak yaitu *Staphylococcus aureus* dan *Pseudomonas aureginosa*.

**Simpulan:** Hipoalbuminemia merupakan faktor independen yang meningkatkan kejadian peritonitis CAPD pada pasien penyakit ginjal kronis dengan nilai OR 13,718.

*Kata kunci: hipoalbuminemia, peritonitis, penyakit ginjal kronis, CAPD*

## ABSTRACT

### HYPOALBUMINEMIA AS A RISK FACTOR FOR PERITONITIS INCIDENCE IN PATIENTS WITH CHRONIC KIDNEY DISEASE UNDER CONTINUOUS AMBULATORY PERITONEAL DIALYSIS AT DR. SARDJITO GENERAL HOSPITAL YOGYAKARTA

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**Background:** Sixty percent of patients under Continuous Ambulatory Peritoneal Dialysis (CAPD) will have at least one episode of peritonitis in the first year. Based on the 2016 International Society for Peritoneal Dialysis (ISPD), hypoalbuminemia affects the incidence of peritonitis in patients with chronic kidney disease under CAPD. The more increasing number of CAPD users and the significance of albumin as a marker of inflammation is required to enhance awareness of peritonitis occurrence.

**Objective:** To analyze hypoalbuminemia at the initiation of CAPD placement as a risk factor for bacterial peritonitis in patients with chronic kidney disease.

**Methods:** This study was conducted with 1:2 matched pair case-control design. Data was obtained from all patients using CAPD from January 2011 to September 2019 at Dr. Sardjito General Hospital Yogyakarta based on inclusion and exclusion criteria. There were 81 and 162 for sample of peritonitis case and control, respectively. Chi Square and Fisher exact was used for statistical test. Logistic regression was performed for multivariate data analysis.

**Results:** The number of patients with chronic kidney disease under CAPD from January 2011 to September 2019 was 329, from which 243 of them were recruited as samples for this study. The 50-59 year age group had the largest proportion by 46.9% with male gender dominated by 63%. There were 51% patients with high education level, and 36.2% patients suffered from DM. There were 52.7% subjects who had hypoalbuminemia (<3.5 g/dL) at the initiation of CAPD placement and had a risk of bacterial peritonitis with OR of 13.079. The most frequent types of bacteria were *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

**Conclusion:** Hypoalbuminemia was an independent factor which increased the incidence of peritonitis in patients with chronic kidney disease under CAPD with OR of 13.718.

*Keywords: hypoalbuminemia, peritonitis, chronic kidney disease, CAPD.*