



Abstract Type : Poster exhibition

Abstract Submission No.: A-0188

Abstract Topic : Dialysis

Characteristics of Pseudomonas Peritonitis in Peritoneal Dialysis Patients At Hasan Sadikin Hospital Indonesia

Dania Artriana, Lilik Sukesi, Rizky Andhika

Department of Internal Medicine-Nephrology, Hasan Sadikin Hospital, Indonesia

Objectives : Pseudomonas peritonitis is a serious complication of peritoneal dialysis. It's often associated with poor outcome, catheter removal, and transfer to hemodialysis. Identification of the pathogen and understanding the characteristics of affected patients is crucial for treatment strategies and improving outcome. This research aims to understand the characteristic of Pseudomonas peritonitis in hospitalized patients at Hasan Sadikin Hospital Indonesia.

Methods : This was descriptive retrospective study using secondary data from peritonitis patients undergoing CAPD in 2020-2023. This study using total sampling technique, inclusion criteria were patients age ≥ 18 years with CAPD peritonitis, having complete medical record data, and CAPD fluid culture results. Data categorized into three groups based on microbiological culture findings: pseudomonas infection, non-pseudomonas infection, and culture negative. Data were analyzed using SPSS software.

Results : This study included 67 peritonitis patients undergoing CAPD. Of the 67 cultures examined, 14 patients had pseudomonas peritonitis, 27 patients non-pseudomonas, and 26 patients culture negative. Pseudomonas group had the highest median age (53 years) and predominantly male (85.7%), though differences in age ($p=0.191$) and gender ($p=0.167$) were not statistically significant. Diabetes mellitus was significantly more prevalent in the Pseudomonas group ($p=0.046$), and prior antibiotic use was also significantly higher ($p=0.002$), indicating potential risk factors for Pseudomonas infection. Laboratory parameters and outcomes showed minor variations across groups, Pseudomonas group had the lowest haemoglobin levels and recovery rate, but none were statistically significant ($p>0.05$).

Conclusions : Pseudomonas infection in PD patients is more common in older males and those with diabetes or a history of antibiotic use. Although laboratory parameters and outcomes showed trends, none were statistically significant. These findings highlight the need for targeted preventive measures and further research to improve management strategies.

Table Pseudomonas.jpeg



Patient Characteristic	Culture Result (N = 67)			P Value
	Pseudomonas n=14	Non- Pseudomonas n=27	Negative culture n=26	
Age (Year), median (min-max)	53 (25 – 59)	38 (23 – 70)	46 (26 – 59)	0.191
Gender, n (%)				0.167
Male	12 (85.7)	16 (59.3)	15 (57.7)	
Female	2 (14.3)	11 (40.7)	11 (42.3)	
BMI (kg/m²), median (min-max)	20.8 (17.6 – 24.4)	20.0 (17.2 – 25.4)	22.1 (18.7 – 28.7)	0.153
CKD Etiology, n (%)				0.225
Diabetes	8 (57.1)	7 (25.9)	5 (19.2)	
Hypertension	2 (14.3)	12 (44.4)	13 (50)	
Glomerulonephritis	3 (21.4)	6 (22.2)	7 (26.9)	
Others	1 (7.1)	2 (7.4)	1 (3.8)	
Comorbidity, n (%)				-
Hypertension	14 (100)	27 (100)	26 (100)	
Diabetes	8 (57.1)	8 (29.6)	5 (19.2)	0.046*
Myocardial Infarction	0 (0)	1 (3.7)	0 (0)	0.471
Chronic Heart Failure	4 (28.6)	3 (11.1)	9 (34.6)	0.120
Stroke	0 (0)	1 (3.7)	1 (3.8)	0.761
Hyperuricemia	2 (14.3)	5 (18.5)	6 (23.1)	0.790
Hepatitis B	2 (14.3)	1 (3.7)	4 (15.4)	0.331
Hepatitis C	5 (35.7)	5 (18.5)	9 (34.6)	0.339
HIV	1 (7.1)	0 (0)	0 (0)	0.146
Lung Tuberculosis	1 (7.1)	0 (0)	0 (0)	0.146
PD duration until Peritonitis (month), median (min-max)	17 (1 – 48)	28 (3 – 96)	31 (1 – 76)	0.237
Patient History, n (%)				
Peritonitis	9 (64.3)	10 (37)	9 (34.6)	0.156
Antibiotic Use (90 days)	10 (71.4)	7 (25.9)	5 (19.2)	0.002*
Laboratoy				
Haemoglobin (g/dL)	8.5 ± 1.8	9.0 ± 1.5	9.3 ± 2.0	0.384
Albumin (g/dL)	2.62 ± 0.72	2.28 ± 0.60	2.45 ± 0.84	0.347
Glucose (mg/dL)	108 (81 – 470)	105 (84 – 150)	105 (72 – 189)	0.833
Ureum (mg/dL)	87.5 (33.4 – 151.3)	79.0 (45.2 – 248.0)	76.1 (40.8 – 226.2)	0.784
Creatinin (mg/dL)	10.86 (4.77 – 16.90)	9.47 (5.35 – 22.98)	9.50 (5.34 – 16.50)	0.445
Outcome, n (%)				0.163
Death	0 (0)	2 (7.4)	1 (3.8)	
Aff Catheter	3 (21.4)	3 (11.1)	0 (0)	
Recovery	11 (78.6)	22 (81.5)	25 (96.2)	

Table Pseudomonas.jpeg

