

Abstract Submission No.: A-0130

Elderly Patients on Peritoneal Dialysis Peritonitis-Analysis of Risk Factors and Preventive Strategies.

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Objectives : This study aims to investigate the factor influencing peritonitis in elderly PD patients.

Methods : This retrospective study analyzed data of 92 PD peritonitis patients aged 65 and above from 2018 to 2022. The dataset included information on patients' basic characteristics, causes of peritonitis, and microbial strains, encompassing a total of 119 peritonitis episodes, with 20 patients experiencing recurrent infections.

Results : From 2018 to 2022, a total of 330 elderly patients underwent PD, with 92 experiencing PD peritonitis. The peritonitis rate among elderly patients (27.9%) exceeded the overall peritonitis rate of our hospital (12.7% to 16.8% of 2018 to 2022). The majority of peritonitis cases occurring within the first 1-5 years (50%). Gram-positive bacteria, notably *Staphylococcus aureus* (24.3%), were the predominant pathogens. Skill-related issues accounted for the majority of peritonitis cases (52.9%). Notably, 60.5% of elderly peritonitis patients using continue ambulatory PD (CAPD) and 51.1% self-operated. Average hemoglobin and albumin level were 9.8 mg/dL and 3.2 mg/dL, respectively, in elderly peritonitis patients.

Conclusions : *Staphylococcus aureus* emerged as the primary pathogen causing peritonitis in elderly patients, primarily attributed to skill-related problems. Forgetfulness, inadequate disinfection knowledge, malnutrition, and compromised immunity were identified as risk factors. CAPD exchanges increased contamination risks in elderly patients. Mitigating these risks requires a high-protein diet, emphasis on proper hand hygiene and mask-wearing, patient involvement in training sessions, and psychological support to reduce infection risk.

Table1.jpg

Table 1. Peritonitis Patient Characteristics (N=92)

	Patient Number	Percentage (%)
Sex		
male	43	46.7
female	49	53.3
Dialysis experience (year)		
< 1	4	4.3
1-5	46	50
5.1-10	26	28.3
> 10.1	16	17.4
Main fluid changer		
self	47	51.1
families	23	25
foreign worker/caregiver	22	23.9
Comorbidities		
hypertension	78	84.8
diabetes	42	45.7
heart disease	56	60.9

Table1.jpg

Table 2. Causes of Peritonitis (N=119)

Reason	Number	Percentage (%)
Technical	63	52.9
not wearing a mask/not washing hands	43	
continue to use after contamination.	9	
change caregivers without trained.	1	
improper fluid changing environment.	10	
Gastrointestinal problems	48	40.3
diarrhea and constipation	43	
eat raw/overnight meal	2	
ulcer/intestinal perforation/intestinal rupture	3	
Hematogenous*¹	2	1.7
Others	2	1.7
post operation	1	
catheter rupture	1	
Unknown	4	3.4

* 1 : The hematogenous cause refers to the occurrence of secondary peritonitis after bacterial growth in blood cultures collected from patients exhibiting systemic infection symptoms.