

## POS-632

### IMPACT OF COVID-19 INFECTION ON PERITONEAL DIALYSIS PATIENTS OF BANGLADESH: A SINGLE CENTRE EXPERIENCE



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**Introduction:** The novel coronavirus SARS-CoV-2 had affected people around the globe including End Stage Kidney Disease patients performing peritoneal dialysis (PD). Here we report our experience of the impact of COVID-19 infection and the pandemic situation on PD patients of Bangladesh.

**Methods:** This prospective observational study was performed in a specialized kidney hospital of Dhaka, Bangladesh from March 2020 to October 2020.

**Results:** Before the COVID-19 outbreak in March 2020 in Bangladesh, about 72 CAPD (continuous ambulatory peritoneal dialysis) patients were on regular follow up at our center. And from March 2020 to October 2020, 08 patients were newly started on CAPD. Among the total of 80 PD patients, 24 patients (30%) died during the COVID-19 pandemic from March 2020 to October 2020. Comparing to the previous year when COVID-19 infection did not exist, 17 (21.5%) out of 79 CAPD patients died from March 2019 to October 2019.

During the study period, among 80 CAPD patients 06 patients (7.5%) developed COVID-19 infection. Of them 04 patients were test positive and the remaining two were not tested but were suspected based on symptoms. Average age of patients was  $61.3 \pm 13.4$  (39 to 80) years. All the COVID-19 infected patients were male (100%). Fever was the most common presentation (100%), followed by cough (100%), shortness of breath (66.7%), diarrhoea (16.7%) and loss of taste (16.7%). Four patients got admitted to hospital. Two patients stayed at home and started oxygen therapy at home, unfortunately died while preparing for hospital admission.

Of those 4 patients who were admitted, leukocyte count was normal in 75% (3 out of 4) cases and raised in 25% cases and lymphopenia was observed in 75% (3 out of 4) cases. C-reactive protein (CRP) and Serum ferritin was found high in all 04 patients (100%). Chest X-ray showed bilateral pneumonic changes in all 4 patients (100%).

All patients received oxygen therapy. Two patient received antibiotics and one patient received dexamethasone treatment.

Out of the 24 PD patients who died during the COVID-19 pandemic, 06 patients (25%) died of COVID-19 infection. Five (83.3%) out of six patients had both diabetes and hypertension, 02 (33.3%) patients had cardiovascular disease and 02 (33.3%) patients had bronchial asthma. Two patients (33.3%) developed acute respiratory distress syndrome; one patient (16.7%) had cardiac arrhythmia, myocardial infarction and heart failure and one patient (16.7%) suffered from intracerebral haemorrhage.

**Conclusions:** We found that CAPD patients are at high risk of getting COVID-19 infection (7.5%). Our study demonstrated that, a higher number of CAPD patients died during the COVID-19 pandemic period compared to the previous year (30% vs 21.5%) at our center. Obviously COVID-19 infection has contributed to this high mortality. However, other socioeconomic circumstances during this pandemic like financial difficulties, missed appointments due to fear of catching COVID-19 infection, lack of transport due to lockdown situation has also influenced this high mortality. Also the multiple and severe co-morbidities of CAPD patients have contributed to their high mortality.

No conflict of interest

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### TRENDS IN MORTALITY AMONG PERITONEAL DIALYSIS PATIENTS ACROSS TIME PERIODS: THE IMPACT OF PERITONEAL DIALYSIS-RELATED PERITONITIS



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**Introduction:** As the global burden of chronic kidney disease continues to increase, so does the need for a cost-effective renal replacement

therapy. Peritoneal dialysis (PD) offers several advantages in end-stage renal disease but infectious peritonitis (IP) remains one of the most serious and life threatening complications of PD.

The purpose of this study is to assess the prevalence and to evaluate the impact of peritonitis on patient mortality and technique survival with respect to duration of follow-up.

**Methods:** We conducted a twenty seven years retrospective study from 1990 till december 2017 in the nephrology department, Fattouma Bourguiba University Hospital (Monastir, Tunisia). The rate of peritonitis, the causative organisms as well as the patient's outcome after its occurrence have been analyzed. We used the Cox regression model to assess whether peritonitis has a negative impact on mortality.

**Results:** The 476 episodes of IP were identified in 206 patients. The mean age of our patients was  $45.81 \pm 16.8$  years [11–86] (male to female: sex ratio M/F=2.43). The peritonitis rate (months  $\times$  patients/peritonitis) was 17.6 (0.68 episode per year). Time to occurrence of peritonitis from the start of peritoneal exchange was  $14.53 \pm 14$  months. Gram-positive cocci (GC+) were involved in 54.7% of microbiologically proven IP cases presented mostly by *Staphylococcus aureus*. Gram-negative bacilli (GB-) ranked second (37.7%) represented mainly by *Pseudomonas*. The peritonitis was the main influencing factor on the technique survival causing ultrafiltration failure ( $p=0.02$ ). The median survival of the DP technique was 68 months (95%, CI [47, 90]). After adjusting for confounders, peritonitis was independently associated with 95% increased risk of all-cause mortality and near 4-fold increased risk of infection-related mortality (hazard ratio, 4.98; 95% confidence interval: 2.47–8.86). Further analyses showed that peritonitis strongly influenced mortality in patients dialysed within the first 2 years.

**Conclusions:** Peritonitis was independently associated with higher risk of all-cause and infection-related mortality in peritoneal dialysis patients, and its impact on technique survival was determinate. Despite the gradual decrease of its rate over periods, peritonitis remains frequent in our center and calls for optimization of means of prevention.

No conflict of interest

## POS-634

### COMPARATIVE ANALYSIS OF CLINICAL RESULTS BETWEEN ON-SITE ATTENTION (BEFORE COVID19 PANDEMIA) AND TELEMETRIC ATTENTION (DURING PANDEMIA) OF A PERITONEAL DIALYSIS COHORT. LA SERENA. CHILE



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**Introduction:** During the Covid19 pandemia (CV19), patient care with RRT has undergone dramatic changes. CV19 lethality in Peritoneal Dialysis (PD) is greater than general population. We present our experience in PD, in changing the attention model and its clinical results.

**Methods:** In March 2020, we developed a new model of PD patients care. Most of the care was done telemetrically (according to patient availability, email, video calls, whatsapp). Emergencies were attended on site (Peritonitis, catheter malfunction). Patient education about CV19 was telemetric through videos, Chilean ministerial and society links. On-site care was performed by one patient at a time, adapting direct attention to patient, waiting rooms and signals, according to regulations. Regular stable patient care was done through structured telecontrols, which includes: Nurse interaction to obtain patient records (Arterial blood pressure, weight, UF rate, diuresis, catheter exit-site, ankle and catheter photos), modem machine cyler telemetric records, nurse records. In stable patients without safe transfer to the PD center, the nephrologist determined whether there was a need for lab tests. Patients with residences away were asked to obtain lab tests in their localities. Nephrological telemetric control was done with these informations.