

# *Mycobacterium Tuberculosis* Infection in Continuous Ambulatory Peritoneal Dialysis Patients

Kevin Hellin\*

Department of Nephrology, University of Toronto, Toronto, USA

**Corresponding author:** Kevin Hellin, Department of Nephrology, University of Toronto, Toronto, USA, E-mail: Hellin\_K@gmail.com

**Received date:** May 13, 2024, Manuscript No. IPJCN-24-19231; **Editor assigned date:** May 16, 2024, PreQC No. IPJCN-24-19231 (PQ); **Reviewed date:** May 30, 2024, QC No. IPJCN-24-19231; **Revised date:** June 06, 2024, Manuscript No. IPJCN-24-19231 (R); **Published date:** June 13, 2024, DOI: 10.36648/2472-5056.9.3.251

**Citation:** Hellin K (2024) *Mycobacterium Tuberculosis* Infection in Continuous Ambulatory Peritoneal Dialysis Patients. J Clin Exp Nephrol Vol.9 No. 3: 251.

## Description

Peritoneal Dialysis (PD) is a form of dialysis that utilizes the lining of the abdominal cavity, known as the peritoneum, to filter waste products from the blood when the kidneys. This method of dialysis offers an alternative to hemodialysis and provides certain advantages that make it an appealing option for many patients with Chronic Kidney Disease (CKD). Peritoneal dialysis involves the insertion of a catheter into the abdominal cavity, allowing for the introduction and removal of a dialysis solution. This solution, typically a sterile mixture of water, glucose and other minerals, flows into the peritoneal cavity where it absorbs waste products and excess fluids from the blood through the peritoneal membrane.

## Tuberculosis infection

End-Stage Renal Disease (ESRD) can be effectively treated with Continuous Ambulatory Peritoneal Dialysis (CAPD). A dangerous condition is Tuberculous Peritonitis (TBP) in patients with CAPD. The primary complaint that brought the 25-year-old female to the emergency room was fever and intermittent abdominal pain. CAPD was inserted because the patient had a history of renal failure. Leukocytes that were +3/visual field and positive for acid-fast bacilli were found in the CAPD fluid. Antituberculous medication was administered to the patient, the CAPD was removed and an AV shunt was installed for the subsequent HD access. CAPD-associated tuberculous peritonitis must always be treated with a high suspicion index. End-Stage Renal Disease (ESRD) can be effectively treated with Continuous Ambulatory Peritoneal Dialysis (CAPD). Peritonitis is one of the infectious complications of CAPD that causes failure of this modality requiring a switch over to hemodialysis. This can lead to technical failure, peritoneal membrane failure, increased length of hospitalization and mortality. In the United States, approximately 13% of patients requiring long-term renal substitution are managed with CAPD. Abdominal infections, hernias, high blood sugar, abdominal bleeding and catheter

blockage are all potential complications. Peritoneal dialysis is beyond the possibilities in those with critical earlier stomach a medical procedure or provocative entrail disease. It requires a level of specialized expertise to be done appropriately.

## Peritoneal dialysis

Touch contamination, such as putting in a catheter with unclean hands and potentially introducing bacteria into the abdomen, is a common cause of peritonitis. Other causes include catheter complications, transplantation of bowel bacteria and systemic infections. Disease rates are profoundly factor by locale and inside focuses with assessed. With ongoing specialized progresses peritonitis frequency has diminished over time. Anti-microbials are required on the off chance that the wellspring of disease is bacterial; there is no reasonable benefit for other much of the time utilized medicines, for example, routine peritoneal lavage or utilization of urokinase. The use of nasal mupirocin for prevention does not appear to have any effect on peritonitis. Of the three types of connection and fluid exchange systems (standard, twin-bag and y-set), the twin-bag and y-set systems were found to be better at preventing peritonitis than the conventional systems. While the twin-bag and y-set systems used two bags and only one connection to the catheter, the y-set uses a single y-shaped connection between the bags to empty, flush and fill the peritoneum through the same connection. Peritoneal dialysis represents a viable and often advantageous alternative to hemodialysis for many patients with chronic kidney disease. Its flexibility, home-based nature and gentler impact on the cardiovascular system make it an attractive option for those who meet the medical criteria and are capable of managing their own care. However, it is essential for patients to thoroughly discuss all available options with their healthcare team to make an informed decision that best suits their individual needs and lifestyle. Through careful consideration and planning, peritoneal dialysis can significantly enhance the quality of life for those living with kidney disease.