

## Perspective

# The benefits and drawbacks of continuous cycling peritoneal dialysis

Chian Hua\*

Department of Nephrology, Seishokai Memorial Hospital, Tokyo, Japan.

Received: 15-Feb -2022, Manuscript No. IJUN-22- 97757; Editor assigned: 17- Feb-2022, Pre QC No: IJUN-22- 97757 (PQ);  
Reviewed: 04- Mar-2022, QC No: IJUN-22- 97757; Revised: 11-Mar-2022, Manuscript No: IJUN-22- 97757 (R); Published:  
18-Mar-2022

## ABOUT THE STUDY

Continuous Cycling Peritoneal Dialysis (CCPD) is a form of dialysis used to treat patients with Chronic Kidney Disease (CKD). This form of dialysis allows patients to receive dialysis treatment while they sleep, which can help improve their quality of life by reducing the time they need to spend undergoing dialysis during the day.

### Peritoneal dialysis

Peritoneal dialysis is a form of dialysis that uses the peritoneum, a thin membrane that lines the abdominal cavity, to filter waste products and excess fluid from the blood. During peritoneal dialysis, a sterile solution called dialysate is introduced into the peritoneal cavity through a catheter that has been surgically placed into the abdomen. The dialysate contains a specific combination of minerals and electrolytes that helps to balance the body's fluids and remove waste products. Once the dialysate has been introduced into the peritoneal cavity, it is left in place for a set period of time, during which time the waste products in the blood diffuse across the peritoneal membrane and into the dialysate. After this period of time, the used dialysate is drained from the peritoneal cavity, and a fresh batch of dialysate is introduced. This cycle is repeated multiple times throughout the day, typically four to six times.

### Continuous cycling peritoneal dialysis

CCPD is a variation of peritoneal dialysis that is designed to allow patients to receive dialysis treatment while they sleep. During CCPD, a machine called a cycler is used to automate the process of introducing fresh dialysate and draining used dialysate from the peritoneal cavity. This allows patients to receive multiple cycles of dialysis throughout the night, while they sleep. Continuous cycling peritoneal dialysis is typically performed

using a cycler that is about the size of a small suitcase. The cycler is programmed to automatically fill the peritoneal cavity with fresh dialysate, allow the dialysate to remain in place for a set period of time, and then drain the used dialysate from the peritoneal cavity. This process is repeated multiple times throughout the night, with each cycle lasting for several hours.

### Benefits

There are several benefits to using CCPD as a form of dialysis. First and foremost, CCPD allows patients to receive dialysis treatment while they sleep, which can help to improve their quality of life. Because CCPD is automated, patients do not need to wake up in the middle of the night to perform dialysis, which can help them get a better night's sleep.

In addition, CCPD can be performed at home, which allows patients to have more control over their treatment and can help them avoid the need to travel to a dialysis center multiple times per week. This can be particularly beneficial for patients who have mobility issues or who live in remote areas. Continuous cycling peritoneal dialysis is also a gentler form of dialysis than hemodialysis, which is another common form of dialysis. Hemodialysis involves using a machine to filter the blood outside of the body, which can be more invasive and can require the use of a larger catheter. CCPD, on the other hand, uses the body's own peritoneal membrane to filter waste products from the blood, which can be gentler on the body.

### Drawbacks

While CCPD has many benefits, there are also some drawbacks to this form of dialysis. One of the main drawbacks is that Continuous cycling peritoneal dialysis requires patients to have a surgically placed catheter in their abdomen. This can be uncomfortable and can increase the risk of infection.

\*Corresponding author. Chian Hua Email: [Huaian99@yahoo.com](mailto:Huaian99@yahoo.com)