Editorial

The Study of Peritoneal Dialysis

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INTRODUCTION

When your kidneys can no longer properly extract waste products from your blood, peritoneal dialysis (per-ih-toe-NEE-ul die-AL-uh-sis) is used. This technique filters the blood in a different way than hemodialysis, which is a more traditional blood-filtering procedure.

During peritoneal dialysis, a cleaning fluid flows through a tube (catheter) that runs through a part of your abdomen. The peritoneum (abdominal lining) acts as a buffer, eliminating waste products from the blood. The filtered waste products-containing fluid flows out of your abdomen and is discarded after a set amount of time.

These treatments may be performed at home, at work, or on the road. However, not all with kidney disease will benefit from peritoneal dialysis. You'll either require physical dexterity and the ability to care for yourself at home, or you'll require the services of a dependable caregiver.

Hemodialysis involves removing blood from the body, filtering it through a pump, and then returning the filtered blood to the body. Hemodialysis is usually performed in a health-care facility, such as a dialysis Centre or a hospital, but it may also be done at home.

Peritoneal Dialysis Study

Inflammation of the abdominal lining is linked to peritoneal dialysis (peritonitis). The catheter site used to move the cleaning fluid (dialysate) into and out of your abdomen could become infected as well. The risk of infection is higher if the person performing the dialysis is not properly trained. Sugar is present in the dialysate (dextrose). If you absorb some of the dialysate, you can consume hundreds of extra calories per day, resulting in weight gain. The extra calories will also raise blood sugar levels, which can be dangerous if you have diabetes.

After a few years, peritoneal dialysis can become ineffective. It's possible that you'll need to turn to hemodialysis. Certain prescription and over-the-counter medicines, such as nonsteroidal anti-inflammatory drugs, can damage your kidneys. Swimming in a lake, pond, river, or monochlorinated pool, or soaking in a bath or hot tub any of these activities raise the risk of infection. Showering and bathing in a chlorinated pool are also suitable options.

It would be necessary to have surgery to replace the catheter that carries the dialysate in and out of your abdomen. Local or general an aesthesia can be used for the treatment. The tube is usually placed around the bellybutton. After the catheter is implanted, your doctor will most likely advise you to wait up to a month before beginning peritoneal dialysis treatments to allow the catheter site to heal. You fill your abdomen with dialysate, leave it there for a set amount of time, and then remove it. The fluid is moved through the catheter and into and out of your abdomen by gravity.

Three to five exchanges during the day and one with a longer dwell time while sleeping may be needed. You can share at home, at work, or anywhere else that is clean. When the dialysate is in your belly, you will go about your daily activities. During a dialysis exchange, this test compares blood and dialysis solution samples. The results show whether waste toxins from your blood migrate quickly or slowly into the dialysate. This knowledge can be used to see if your dialysis will be better if the solution remained in your abdomen for a shorter or longer period of time. A blood sample and a sample of used dialysis solution are analyzed to see how much urea is extracted from the blood during dialysis. If you still produce urine, your doctor can take a sample to determine the amount of urea in it.

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