A NEW STERILE CONNECTING SYSTEM TO AVOID PERITONITIS IN CONTINUOUS AMBULATORY PERITONEAL DIALYSIS

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The introduction of Continuous Ambulatory Peritoneal Dialysis (CAPD) by Popovich [1,2] and Oreopoulos [3] shows a new trend in dialysis treatment. One main limitation of CAPD is the high incidence of peritonitis because of frequent connecting and disconnecting of the fluid bags. The most important problems are:

1. Bacterial contamination of the connecting parts by touching.
2. No lock connecting system.
3. Inadvertent disconnection during dwell time.
4. Difficulty connecting and disconnecting, especially for elderly people.
5. Time consuming.
6. Destruction of the connecting parts by alcoholic disinfecting agents.

To avoid bacterial contamination we have developed a connector which has the Luer cones recessed in a protecting sleeve. With this, no inadvertent contact

Figure 1. Schematic drawing of a male and female connector with PVP - Iodine sponge
is possible. Female and male connectors fit telescopically into each other and are locked bayonet-fashion. The male connector has within the protecting sleeve a sponge with disinfecting agent (PVP—Iodine) which is pressed out by the female connector. The outside of the Luer cones are disinfected during the dwell time.

The male connector is integrated in the bag and is disposable. The female connector remains on the connecting line and is therefore disposed of weekly. The same system is used for the connection of the peritoneal catheter and the connecting line. The advantages of this system is shown in Figure 1.

Although the connector is only a small component, the incidence of peritonitis can be reduced by regular use of this system. Handling is simple and quick.

References