

EDITORIAL

Peritoneal Dialysis as an Alternative Choice for Renal Replacement Therapy in Emergency Department

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Increasing the prevalence of renal failure cases needing renal replacement therapy (RRT) among referring to the emergency department highlights the preparation requirement for services giving to these patients. The limited number of hemodialysis machines, inaccessibility of dialysis machines in all hospitals, large number of patients, and shortage of expert personnel in this field are some of current problems of health centers to present services for these patients. Since hemodialysis units are usually reserved for patients with chronic renal failure as overnight and weekly base, this problem would be exacerbated when the subjects need emergent dialysis. On the other hand, in acute critical patients who have hemodynamic instability or heart failure, hemodialysis is not tolerable then not treatment of choice. Therefore, peritoneal dialysis can be considered as an alternative choice for emergent dialysis cases. The peritoneal dialysis method is one of the effective treatment strategies for dialyzed patients without need of expensive machines and equipment. This method has been tested on human since 1923, in which blood purification is performed through peritoneal membrane. In some countries more than 90% of patients are dialyzed through this way (1, 2). Peritoneal dialysis is also expanding in Iran and based on the policy of ministry of health at least 15% of dialyzed patients are to be dialyzed using this method in the country. For the first time, peritoneal dialysis has been performed in Imam Reza hospital, Mashhad, Iran, in 1993 and then after in two peritoneal dialysis center of Tehran (3). Today PD has been accepted as an efficient and reliable alternative way for RRT in acute as well as chronic renal failure. Although there are several successful reports applying the peritoneal dialysis even in hyperkalemia, acidosis, uremic syndrome, and etc. (4-8), It has less been considered as a current alternative therapy for emergent dialysis cases. Of course using this method is not limited only to the renal failure and can be used to remove dialyzable toxins such as barbiturates and ethylene glycol as well as treatment of severe electrolyte disturbance and peritonitis (1, 2). To reach this goal, bedside embedding peritoneal dialysis catheter is a critical and non-negligible point on management of the pa-

tients due to the dangerous situation of transporting these patients to operating room. We used to put a semi rigid temporary polyethylene catheter (Trocaath) with guidance of stylet introducer which no have been replaced by the flexible silicone rubber catheter introduced by Tenckhoff. It has many advantages in comparison with the trocath catheters. Its softness allows it to be tunneled subcutaneously in the anterior abdominal wall and its Dacron single cuff reduced the incidence of complications such as, leakage, accidental dislodgement and infection. These catheters can be inserted as a bedside percutaneous procedure with local anesthesia as well as laparoscopic and surgical methods. Based on the above mentioned data, it seems that training of surgeons, internists, and emergency physicians regarding inserting percutaneously a PD catheter, and management of probable complications can be considered as essential steps toward a better handling of such an almost large group of patients in emergency wards.

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