

## Methods

A cross sectional study was done from January 2011 to June 2012 on adult patients admitted to dialysis unit in Al-Kindi Teaching Hospital who had undergone PD. we designed a form that staff completed to evaluate the cause of renal failure, the indications for dialysis, the complications and outcome of PD. The technique of insertion of peritoneal dialysis is described below.

The patient was asked to empty his/her bladder before the procedure. An area below the umbilicus was prepared aseptically and a point at the middle third from the umbilicus to symphysis pubis was infiltrated with lignocaine. A small skin incision was made and the abdomen punctured vertically with firm pressure on the stylet catheter. The stylet was withdrawn slightly and the catheter introduced to either the iliac fossa posteriorly or to the pelvis.

The infusion tubing was then connected using meticulous aseptic technique. The dialysate bottles (commercially prepared) were suspended from a high stand and the fluid was infused into the peritoneum by gravity. We planned for 72 cycles of IPD in all patients. Each cycle was prescribed to be 1 hour in duration, with a drain time of 10 minutes, a dwell time of 30 minutes, and an outflow time of 20 minutes. Each exchange volume (2 L) contained 1.7% dextrose. In patients with fluid overload, dialysate containing a higher concentration of dextrose was used. Intraperitoneal gentamycin was used 12hourly as a prophylactic measure.

The patients were monitored for any variation in heart rate, blood pressure, or respiratory rate and for hemorrhage, catheter leak, catheter blockage, and infection. The serum creatinine,

blood urea, sugar and serum electrolytes were determined daily while on PD. Peritoneal dialysate was sent for microscopic examination and culture only on suspicion of peritonitis. Peritonitis was diagnosed by the presence of turbidity of dialysate, abdominal pain / tenderness and fever.

The patients who refused to complete peritoneal dialysis for a cause other than development of complications (e.g. planning to consult other centers etc...) had been excluded in our study.

## Statistical analysis

SPSS (statistical package for social science) version 16 software for windows was used. All data were entered and analyzed with appropriate statistical tests; Descriptive statistics were presented as (mean  $\pm$  standard deviation), frequencies and percentages, Chi square was used for comparison of frequencies and percentage of different variables. In all statistical procedures and tests, level of significance was set at  $P = 0.05$  was assumed.

## Results

A total of 669 patients underwent IPD during the study period, including 382 men and 287 women. The age of the patients ranged from 18 years to 81 years with mean age  $54 \pm 13.9$ . Among the patients, there were 168 cases of acute renal failure (ARF) and 501 cases of chronic renal failure (CRF) requiring acute dialysis (Table 1). The underlying causes of acute and chronic renal failure are shown in (Table 2). Indications for acute dialysis were metabolic acidosis, uremic encephalopathy, fluid overload, hyperkalemia, pericarditis and uremic symptoms (Table 3).

**Table 1. Demographic features of the studied patients**

Feature	Mean $\pm$ SD	Range
Age (yr)	54.6 $\pm$ 13.9	18 - 81
Sex	Male Female	382 (57.1%) 287 (42.9%)
Renal failure	Acute Chronic	168 (25.11%) 501 (74.89%)