Quality of Life Assessment: A Comparative Study between Haemodialysis and Peritoneal Dialysis

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Background

The prevalence of end-stage renal diseases (ESRD) continues to rise world-wide. An increasing number of ESRD patients are admitted to dialysis until they receive kidney transplant or they receive dialysis for an indefinite duration. In Sudan there are 47 haemodialysis (HD) centers equipped with 539 dialysis machines. In 2011, the total number of patients on hemodialysis was reported to be 11,053 patients, 38.1% of them on chronic HD. Most HD patients were adults (96%), with females constituting 34% of them (NCKDS report, 2011). On the other hand, the first type of automated peritoneal dialysis (APD) introduced in Sudan was the intermittent peritoneal dialysis (IPD), however its use is limited because it is hampered by increased rate of peritonitis and lack of expertise. Accordingly, only 8.3% of the total ESRD patients are allocated on four IPD centers with 30 beds (NCKDS report, 2011). Continuous Ambulatory Peritoneal Dialysis Program (CAPDP) was introduced in Sudan since 2005, Currently, there are 100 patients (including children) on CAPD, 67 patients of them are adults seen in four centers at Khartoum state (CAPDP, personal communication, 2012).

Chronic dialysis deteriorates the quality of life (QOL) for ESRD patients. Although a lot of data concerning ESRD in Sudan has been published, little has been published regarding health related quality of life (QOL) for patients undergoing dialysis. Moreover, the effect of dialysis duration and socioeconomic status on QOL of ESRD patients has not been addressed by any study, according to our current knowledge.

Objective

This study aimed to compare the QOL among Sudanese patients undergoing HD and PD using the EQ-5D questionnaire. The second objective was to determine the effect of dialysis duration and socioeconomic status on QOL of the patients.

Method

This was a cross-sectional study, conducted from December 2011 to March 2012. 340 patients on haemodialysis (HD), and 30 patients on peritoneal dialysis (PD) were included in the study. The patients were recruited from eight dialysis centers. The EuroQOL five dimension questionnaire (EQ-5D) and visual analogue scale (VAS) were used to compare the QOL between HD and PD patients. Moreover, a comparison was made between patients on short- and long-term dialysis, and between patients from different socioeconomic classes.

Results

Out of the five EQ-5D questionnaire dimensions studied, only two domains (pain/discomfort, and anxiety/depression) showed significant differences between patients undergoing HD and PD. On the
other hand, patients on HD who were on short-term dialysis, and those who were classified as from a poor socio-economic class reported more problems in usual activity dimension, whereas the dialysis duration and socio-economic status were found to have no effect on the PD group.

**Conclusion**

PD was found to be better than HD in two dimensions (pain/discomfort and anxiety/depression). Dialysis duration and socio-economic classification affected only usual activity dimension of the HD group and did not affect patients on PD.