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Short Commentary

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Hemodialysis or peritoneal dialysis: The quality of life of patients in 30 cases

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Abstract

The measurement of patients' quality of life allows for quantifying the impact of diseases on patients' experiences. Quality of life is a primary criterion for choosing the method of extra-renal purification.

This work aims to evaluate the quality of life of patients on hemodialysis compared to patients on peritoneal dialysis. 30 patients with end-stage chronic kidney disease undergoing dialysis, followed in our Pediatric B department at the University Hospital of Marrakech, participated in our study after giving their prior consent; of which 15 patients are on hemodialysis and 15 patients are on peritoneal dialysis. We used the SF-12 test for evaluation, an abbreviated version of the "Medical Outcomes Study Short-Form General Health Survey" (SF-36) containing only 12 questions out of the 36 questions. Hemodialysis has significantly transformed the formerly fatal course of chronic kidney failure. However, this palliative treatment disrupts the patient's world in several ways. Patients with end-stage chronic kidney disease treated with PD had a better generic quality of life measured by the SF-12 scale than patients on HD.

Keywords: End-stage renal failure; Peritoneal dialysais; Hemodialysais; Treatment; Quality of life.

Introduction

The progression of chronic kidney disease can lead to End-Stage Chronic Kidney Disease, a stage at which it is necessary to consider an extracorporeal purification technique: hemodialysis or peritoneal dialysis.

Although dialysis is an effective renal replacement therapy, it can affect the social and daily activities of patients. It has been shown that dialysis patients have a lower quality of life than the general population [1]. The assessment of quality of life is subjective and involves multidimensional measures that include physical and mental functions, as well as the effectiveness of However, in order to obtain more personal and qualitative responses. In our study, we aim to compare the quality of life of patients according to the different dialysis techniques adopted.

Patients and methods

This is a cross-sectional and longitudinal study conducted over three months from February 1, 2023, to April 30, 2023. Were included Thirty patients with end-stage chronic kidney disease on dialysis, followed in our pediatric B unit at the University Hospital of Marrakech, patients whose duration on dialysis was more than three months, presenting a stable clinical condition, not hospitalized in the past month, and who had given their prior consent. 15 patients are on hemodialysis and 15 patients are on Peritoneal Dialysis (PD) taking into account their epidemiological characteristics. Quality of life (QL) was assessed using the SF-12 test, an abbreviated version of the "Medical Outcomes Study Short-Form General Health Survey" (SF-36); containing only 12 questions out of the 36 questions. It

is designed to have similar performance to the SF-36. Focusing on a comparative subjective assessment of physical and mental functions.

Results

Thirty patients participated in our survey; 15 hemodialysis patients treated in a hemodialysis center and 15 patients on peritoneal dialysis at home. The average age of the patients was 10 years, with extremes ranging from 3 years to 18 years. Our sample consists of 17 girls and 13 boys. 9 girls under PD and 8 girls on hemodialysis, while for the boys, 6 boys are under PD and 7 boys are on hemodialysis. 86% of our patients, or 26 patients, benefit from social coverage. While 13%, or 4 patients, are not. 86% of our patients are of school age. 80% of school-aged patients on PD are enrolled in school, whereas only 40% of hemodialysis patients are enrolled in school. Regarding generic quality of life: 30 patients with stage 5 end-stage renal disease on dialysis responded to the SF-12 questionnaire. For the Physical Component Summary (PCS) score : the median was 59.12 with a minimum score of 21.05 and a maximum score of 62.12. The mean PCS for hemodialysis patients was 33.69 compared to 50.86 fors patients on PD. For the mental component summary score (MCS): the median was 89.47 with a minimum score of 28.72 and a maximum score of 63.44. The average MCS for hemodialysis patients was 44.50 compared to 44.97 for patients on PD, but with a large difference in standard deviation, 20 for hemodialysis patients versus 7.3 for patients on PD. We conducted a bivariate study of PCS and MCS based on sex, age, and availability of social coverage. For gender, the study found that female patients had a PCS of 38.01 and an MCS of 45.15. Whereas male patients have a PCS of 49.73 and an MCS of 44. Regarding age, the study found a PCS of 47.59 for patients under 14 years old compared to 30.21 for patients aged 14 years or older. The MCS was 44.98 for patients under 14 years old compared to 44.41 for patients aged 14 years and older. We studied the PCS and MCS based on the availability of social coverage, finding that patients with social coverage had a PCS of 51.68 compared to 33.46 for patients without social coverage. The MCS was 44.55 for patients with mutual insurance compared to 50.65 for patients without social coverage.

Discussion

Our work was based on a cross-sectional study, an approach that certainly has the advantage of being easy to execute and constitutes a short-term investigation aimed at understanding phenomena present at the time of the survey. However, it does not provide a comprehensive longitudinal view regarding the impact of the dialysis method on patients' quality of life. In order to identify all the risk factors influencing the quality of life.

Our study showed that the PCS and MCS of patients differed significantly between hemodialysis patients and patients on PD. PD adapts to various dialysis needs and can also offer more freedom and fewer disruptions during the day, allowing children to benefit from an adequate education [2].

Moreover, patients undergoing home dialysis through peritoneal dialysis report generally less pain, as well as fewer outdoor activities, compared to patients receiving hemodialysis in Centers or Units. On the other hand, the MCS related to criteria concerning the environment and balance would be more favorable to peritoneal dialysis. Patients on home dialysis report generally more peaceful external relationships [3]. A qualitative study using in-depth interviews found that pediatric patients perceived home hemodialysis as offering greater flexibility and freedom to live a more normale life compared to patients receiving long-term hospital hemodialysis, who expressed feeling imprisoned and frustrated by the restrictive and relentless dialysis program [4]. Currently, pediatric home hemodialysis programs are not accessible in our country. This is partly due to resource and logistical constraints. In dialyzed children, significant physical health disorders have been reported. Surprisingly, there are studies that have not found significant differences in health-related quality of life scores between patients on HD and those on PD [1,4,5]. It has been suggested that this lack of difference could be partly related to the intensive work effort for the family and the staff associated with the treatment, which might have little impact on the patients' freedom and their daily lives [6]. In the study by Kalender et al. [7], the quality of life scores of patients on PD were found to be higher than those of patients on HD and CKD. This difference appears to be independent of age, sex, and other demographic variables potentially related to quality of life, as these variables are similar in the HD, DP, CKD, and control groups. In patients with chronic kidney disease, physical symptoms (fatigue, loss of energy, etc.) and limitations in social life are the main factors affecting quality of life. This is consistent with the results of our study, which showed that sociodemographic characteristics, whether age or gender, are not significantly associated with generic quality of life, whereas social coverage played a significant role in improving the physical quality of life in our patients.

Conclusion

In conclusion, we suggest that treatment plays an important role in the quality of life in CKD. It is necessary that these dialysis patients receive psychosocial support from family, social workers, and psychologists to improve their psychosocial well-being, in other words, their quality of life, regardless of the dialysis method used.

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