Dialysis modality and quality of life

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Quality of life (QoL) is a state that can be characterized as complete physical, mental and social well-being and not merely the absence of disease or infirmity. The QoL is significantly affected in patients with chronic kidney disease on dialysis (CKD-5D) and the reasons are multifactorial, including but not limited to, the presence of uremic symptoms such as nausea and vomiting, malnutrition, exhaustion, severe dietary restrictions and the presence of other major comorbidities such as hypertension and diabetes. In addition, the increase in the prevalence of dialysis patients over the past decades, associated with a concern to provide the best possible treatment to our patients, make the studies comparing modalities of renal replacement therapy indispensable for a better understanding and management of this problem.

In fact, for more than 20 years studies comparing intermittent hemodialysis (HD) and peritoneal dialysis (PD) have been reported in medical literature. Table 1 summarizes results from papers published over the past five years. These comparisons took particular importance when several studies reported that there is no significant difference in death rates between dialysis modalities, suggesting that the potential benefit in quality of life could directly driven the choice of the initial dialysis modality.[1,2]

In this edition of the JBN, two studies addressed aspects of QoL between dialysis modalities.[3,4] The first study used a cross-sectional design to assess QoL using the SF-36 in 317 patients, of which 60 in PD and 257 in HD, from 03 centers from the south region of Brazil. Ramos E. et al found no significant differences in QoL between the modalities. However, although in line with some previous reports, these results should be interpreted with caution because its cross-sectional design and use of prevalent dialysis patients. With these limitations one cannot exclude the possibility of a selection bias, particularly because some clinical characteristics that normally influence the choice of the first modality may also impact the quality of life. Similarly, the groups' present measured and potential unmeasured differences that could make them difficult to be compared (e.g., technique survival in HD is usually greater than in PD, so in prevalent patients the dialysis vintage will likely be greater in HD, and we know that such time of prior exposure to dialysis may affect QoL).

The second is a Portuguese study with 125 patients, including 31 in PD and 94 in HD.[3] Despite its cross sectional design and related limitations as commented above for the first study, the originality of this paper is because it addresses a specific topic not seen very often in the nephrology literature. In addition to the QoL, measured with the WhoQoL-Bref, the author used the dyadic adjustment scale to analyze marital relationship and how they differ between modalities. The dyadic adjustment scale has been widely used to evaluate the quality of marriage including dyadic satisfaction, dyadic consensus, cohesion and affectional expression[5]. He found that PD patients had higher scores on the dyadic adjustment scale. Nevertheless, this finding is not completely unexpected due the study design because it is intuitive that, in a non-randomized study, the family of patients selected to start the therapy in PD normally present a more active role in the care of the patient.

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Table 1 Studies from the last decade comparing QoL between dialysis modalities

Author	Region/Year of publication	Design	HD/PD patients	Tool	Findings
Kutner *et al.*[6]	USA/2005	Prospective/Incident patients	455/413	KDQOL-SF	Sem diferença
Retana *et al.*[7]	Espanha/2009	Cross-sectional/Prevalent patients	61/32	SF-36	Sem diferença
Wu *et al.*[8]	China/2013	Cross-sectional/Prevalent patients	97/93	SF-36	Sem diferença
de Abreu *et al.*[9]	Brazil/2011	Prospective/Prevalent patients	189/161	SF12 and KDQOL	Sem diferença
Zang *et al.*[10]	China/2007	Cross-sectional/Prevalent patients	654/408	SF-36	Favorece DP
Ginieri-Coccossis *et al.*[11]	Greece/2008	Cross-sectional/Prevalent patients	77/58	WHOQOL-BREF, GHQ-28 and the MHLC	Favorece DP
Brown *et al.*[12]	England/2010	Cross-sectional/Prevalent patients	140/140	SF-12, HADS	Favorece DP
Fructuoso[13]	Portugal/2011	Cross-sectional/Prevalent patients	37/14	SF-36 and KDQOL-SF	Favorece DP
Al Wakeel *et al.*[14]	Saudi Arabia/ 2012	Cross-sectional/Prevalent patients	100/100	KDQoL SF	Favorece DP
Turkmen *et al.*[15]	Turkey/2012	Cross-sectional/Prevalent	90/64	SF-36 and BDI	Favorece HD
Russo *et al.*[16]	Italy/2010	Cross-sectional/Prevalent	24/24	SF-36 and PGWB	Favorece DP

BDI - Beck depression inventory; GHQ 28 - General Health Questionnaire 28; HADS - Hospital Anxiety and Depression Scale and Illness Intrusiveness Ratings Scale; KDQoL-SF - Kidney Disease Quality of Life Short Form; PGWB - Psychological General Well-Being; SF-12 - Short Form-12 Mental and Physical Component Summary scales; SF-36 - Short Form-36; WHOQOL-BREF - World Health Organization Quality of Life-BREF.

In summary, both studies addresses very important and interesting issues that will continue to be studied for years since there is still no consensus about which method offers the best quality of life, and because dialysis modalities are dynamic and are always changing over time. So, further studies will always be needed, particularly those with longitudinal designs with incident patients. Yet, we believe that we will never reach a consensus and for a simple reason: every patient is different, even though they may share several clinical characteristics. Therefore the advantages of any modality over another will always be relative and decisions should be done according to the priorities of each patient.

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