PREDICTORS OF QOL IN INDIAN PATIENTS ON MAINTENANCE HEMODIALYSIS

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Objectives

- Chronic kidney disease (CKD) and end stage renal disease (ESRD) have become worldwide public health problems (1)
- In India, Hemodialysis remains the most opted form of renal replacement therapy (2)
- Various advances have taken place in the field of hemodialysis over the past two decades, but the quality of life (QOL) in hemodialysis patients is poor and needs improvement (3)
- Our Aim is to identify the factors associated with quality of life in patients on maintenance hemodialysis

Methods

- A **cross-sectional study** conducted in a tertiary maintenance hemodialysis unit in patients who were on maintenance hemodialysis for > 3 months.
- The dialysis prescription was empiric and the frequency of the dialysis sessions was decided by the clinical status of the patient.
- The patients with recent acute ailments like severe sepsis, trauma or fractures were excluded from the study.
- **Inclusion Criteria -** ESRD patient who were aged 18 years or more; on regular twice or thrice weekly hemodialysis and able to provide informed consent.
- **Exclusion criteria -** patients with recent acute ailments like severe sepsis, trauma or fractures were excluded from the study
- An informed consent was obtained from the participating patients. Ethical approval was obtained from the In-hospital ethical committee.
- Clinical information was collected by a study coordinator and entered in a proforma that is attached.
- Instrument for assessing QOL was assessed by world health organization QOL questionnaire (**WHOQOL-BREF**).
- The same was used in a validated Tamil version. The instrument was used after obtaining the permission from WHO.
- The questionnaire was filled up by the patients within a period of one month from the clinical data entry.

✓**Variables studied**

A. **Demographic information** - age, sex, educational status, financial and marital status, dialysis vintage, co-morbidity index , etc..,

B. **Biochemical parameters** –serum albumin measurement, anemia profile including the serum hemoglobin (Sr.Hb), serum ferritin

C. **Dialysis Adequacy parameters** – kt/V, Protein nitrogen appearance (nPNA) was calculated using the Gotch formula, serum transferring saturation (Sr.TSAT) was calculated from the measurements of serum iron and total iron binding capacity

D. Information regarding erythropoietin use, serological status, catheter use were obtained.

E. We arbitrarily divided the total sample size into groups' based on their demographic and clinical characteristics and the QOL scores were compared in between the groups

✓**Instrument for assessing QOL**

Quality of life was assessed by world health organization QOL questionnaire (WHOQOL-BREF). The same was used in a validated Tamil version

Domain 1 - physical health domain

Domain 2 - psychological health domain

Domain 3 - social health domain

Domain 4 - environment health domain

Results

Variable		Quality of Life				
		Domain1	**Domain2**	**Domain3**	**Domain4**	**Total QOL**
NKD	DN	11.2 ± 1.6	11.3 ± 2.1	11.8 ± 3.6	12.7 ± 2.6	47.0 ± 7.9
	GN + others	11.4 ± 1.9	10.6 ± 1.4	13.1 ± 2.9	12.4 ± 2.1	47.4 ± 6.9
	NK	11.9 ± 2.1	11.6 ± 2.3	12.4 ± 3.3	12.6 ± 2.2	48.5 ± 7.5
Co-Morbidity	Only 1	11.8 ± 2.1	11.5 ± 2.2	12.4 ± 3.3	12.5 ± 2.2	48.2 ± 7.6
	More than 1	11.2 ± 1.6	11.3 ± 2.1	12.0 ± 3.5	12.8 ± 2.5	47.3 ± 7.6
	Nil	12.0 ± 1.4	10.5 ± 0.7	12.5 ± 4.9	13.5 ± 2.1	48.5 ± 9.2
Serology	Hepatitis B	10.8 ± 3.6	10.5 ± 2.1	11.0 ± 2.7	10.8 ± 1.9	43.2 ± 7.9
	Hepatitis C	12.2 ± 1.7	11.5 ± 1.6	11.6 ± 2.7	12.7 ± 2.0	48.1 ± 6.1
	Seronegative	11.5 ± 1.8	11.4 ± 2.2	12.5 ± 3.5	12.7 ± 2.3	48.1 ± 7.8
Hb	≤ 10	11.5 ± 1.9	11.3 ± 2.0	12.2 ± 3.4	12.5 ± 2.3	47.5 ± 7.4
	Above 10	12.4 ± 1.9	12.2 ± 2.7	12.5 ± 3.4	13.2 ± 2.4	50.3 ± 8.9

Pearson or Spearman's Rank correlation

Albumin	0.2888**	0.1768	0.0304	0.0138	0.1074
Age	-0.2229*	-0.1424	-0.1550	0.0354	-0.1550

Conclusions

Our results show that higher age and Hypoalbuminemia were the significant Negative determinants of QOL

QOL in patients on MHD is considerably influenced by the factors like demographic parameters, clinical parameters

Many parameters are modifiable and the steps to treat such factors might improve the QOL in these patients.

References

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