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Original Research

Effect of patient counseling on quality of life of hemodialysis patients in India

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ABSTRACT*

End stage renal disease (ESRD) is a growing problem. The effect of patient counseling is to be defined on health-related quality of life.

Objective: The purpose of this study was to find out the impact of patient counseling in health related quality of life (QoL).

Methods: In this prospective interventional study, the Karnofsky Performance Status (KPS) for QoL questionnaire was used in test and control groups for data collection. The same data collection method was used during six months to study the effect of patient counseling.

Results: Health related quality of life in test group showed a consistent improvement of 2% in six months. Improvement of awareness by patient counseling was also improved.

Conclusion: As part of medication therapy management (MTM), patient counseling focusing on dialysis compliance, diet and medications are an effective way to improve health-related QoL and awareness in ESRD. Such services should be made mandatory by law in India to improve outcomes in chronic illness.

Keywords: Kidney Failure, Chronic. Quality of life. Patient Education as Topic. India.

EFFECTO DEL CONSEJO A PACIENTES SOBRE LA CALIDAD DE VIDA DE PACIENTES EN HEMODIÁLISIS EN INDIA

RESUMEN

La enfermedad renal en estadio final (ESRD) es un problema en crecimiento. Debe ser definido el efecto del consejo al paciente sobre la calidad de vida.

Objetivo: El objetivo de este estudio fue evaluar el impacto del consejo a paciente en la calidad de vida relacionada con la salud.

Métodos: En este estudio prospectivo de intervención, se uso para recogida de datos el cuestionario Karnofsky Performance Status (KPS) para calidad de vida en grupos control e intervención. El mismo método de estudio fue usado durante seis meses para evaluar el efecto del consejo al paciente.

Resultados: La calidad de vida relacionada con la salud en el grupo intervención mostro un aumento consistente de 2% en seis meses. También mejoró el conocimiento del paciente mediante el consejo.

Conclusión: Como parte de la Gestión del Tratamiento Medicamentoso (MTM), el consejo a paciente centrado en el cumplimiento con la diálisis, la dieta y la medicación es un modo efectivo de mejorar la calidad de vida relacionada con la salud y el conocimiento de la ESRD. Estos servicios deberían ser obligatorios en India para mejorar los resultados en enfermedades crónicas.

Palabras clave: Fallo renal crónico. Calidad de vida. Educación del paciente como tema. India.

INTRODUCTION

Life in end stage renal disease (ESRD) is miserable, food and fluid restrictions are mandatory for the patients due to hyperkalemia high blood pressure and fluid retention. Salt free diet, low potassium containing foods and limited fluid intake are possible interventions, and even though protein adds up to uremia, ESRD patients have to consume a high protein diet (i.e., 1-1.2gm/kg/day) so as to meet the extra needs for body repair functions and immunity.¹ Since publication of Kidney/Dialysis Outcome Quality Initiative (K/DOQI) in the fall of 1997, National Kidney Foundation (NKF) Dialysis Outcome Quality Initiative (DOQI) Guidelines have become an integrated part of nephrology practice throughout America and many parts of the world

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including India.² In the United States, the incidence and prevalence of ESRD have doubled in the past 10 years are expected to continue to rise steadily in the future. Data from the 2000 annual data report of the United States Renal Data System (USRDS) documents the incidence of ESRD in 1998 of more than 85,000 or 308 per million individuals per year at risk. The point prevalence of ESRD on Dec 31, 1998 was more than 320,000 or 1,160 per million populations of whom 72% were treated by dialysis and 28% had functional kidney transplants.³

Renal care Scenario in India

It is estimated that about 1,00,000 persons suffer from ESRD each year of which only about 20,000 get treated. Over three-fourths of the people suffering from ESRD do not get treated well. Affordability is hampered by low incomes, low reimbursement for chronic illnesses and low penetration of insurance. This is unique to India as most other countries in Asia reimburse a large proportion of a patient spent on dialysis through social welfare means. Mean average age of ESRD patients in India is between 32 to 42 years comparing to 60 to 63 years in developed countries the major contributing factors are diabetes and cardiovascular diseases. Renal transplant in India is severely curtailed due to issues such as possible exploitation and cadaver programme.^{3,4}

Good hemodialysis (HD) treatment requires a meticulously clean atmosphere, isolation of patients to prevent spread of infections, good water, trained technicians and strict adherence to norms on dialyser and consumable reuse. In reality there is a large element of variation in HD practices from center to center. In the absence of strong guidelines and legislations several centers operate without even a water purification system. Traveling to HD centers is a traumatic and expensive proposition for patients. Most of dialysis patients have to be accompanied by another person. As dialysis therapy can't replace normal kidney function, dietary control is a vital element of treatment.⁴ Highlighting the high cost of hemodialysis-welfare services in India support patients only for hemodialysis costs but not for quality living costs. HD costs are anywhere between 600 – 2,000 INR per session or 5,500 (110 USD) to 20,000 INR (400 USD) per month. This does not include spending on medication and travel. An average healthy person in India earns around 4000 to 8000 INR per month.

Patient Counseling

Patient counseling is defined as providing medication information orally or written form to the patients or his/her representative on directions of use, advise on side effects, precautions, storage, diet & life style modifications.⁵ Medication Therapy Management (MTM): "Services provided by pharmacists that improve treatment outcomes. These services promote the safe and effective use of medications. Ultimately, MTM is a way to provide better care for patients".⁶

METHODS

This simple observational, prospective intervention study was conducted for 6 months at the nephrology department in Lisie hospital, Cochin-18. (A multi- super specialty hospital with 1000 beds) The nephrology department is a well equipped unit run by following K/DQI guidelines for ESRD patients in HD. The Hemodialysis ICU has Hemodialysis including 1. SURDIAL-2. of Nipro corporation, 2. AK-95 S of Gambro renal products and 3. CENTRY -2 of Cobe. Two machines are placed in the isolated ward for HIV, Hepatitis C or Hepatitis B infected patients. Patients visit for the classical four hour HD duration were basically in four types of frequencies such as once in a day, three times in one week, two times in one week or once in five days.

Due to poor economical aspects; most of the patients choose the 'twice in a week' category. There are two dialysis technicians, duty nurses and students caring the HD patients other than the doctors. There was nobody giving a systematic and extensive patient counseling at the time of the study. Patient counseling provided was mainly about food and fluid restrictions, life style modifications, correct misconceptions about diseases and medication. Counseling was given exclusively to the test group of 28 patients. The control group had another 28 patients on HD without patient counseling. The variables such as age, co-morbidity (diabetes mellitus), gender, duration on dialysis, financial crisis, serum albumin, serum potassium values and regularity of dialysis (adequacy of attendance) were approximately equally distributed in the test and control group. For health related QOL, the KPS has been used worldwide over 50 years for listing the QOL in chronic diseases including ESRD. The KPS is a gold standard scale. The scale assesses three dimensions of health status – activity, work and self-care – and can be administered by any healthcare professional for a quick assessment of general functioning and survival. The original KPS is an ordered categorical scale with 11 levels, starting with 100% for normal; no complaints; no evidence of disease to 0% for death.^{7,8}

Exclusion criteria:

1. Patients who are not interested in the counseling intervention study or not consented.
2. Patients who voluntary withdraw from dialysis.
3. HIV or Hepatitis C infected patients.
4. Patients preparing for kidney transplantation.
5. Patients with acute renal failure.

RESULTS

In this observational nonrandomized study; parameters selected for consistency among sample selection to test and control groups are presented in Table 1. Those who could not meet the financial needs to continue the treatment their own without donations from others are considered to have financial crisis.

Table 1. Groups characteristics		
	control group	test group
Number of patients	28	28
Average age of patients	47.5 yrs	50.2 yrs
Gender	M-19, F-9	M-20, F-8
Regularity on dialysis	20/28	19/28
Type 2 diabetes mellitus in	10/28	10/28
Average total duration on dialysis	1.53 yrs	1.68 yrs
Average serum albumin	3.86 gm/dl	3.97 gm/dl
Average serum potassium	5.28 Mmol/L	5.04 Mmol/L
Financial crisis for	12/28	13/28

In the control group, health related QOL declined at the rate of 2% in first three months or remained constant in next three months. In the test group the intervention showed a constant improvement of 2% growth in the first and second three months period of data collection. Survival of ESRD patients was showed to be one to two years in the study population. Only two ESRD patients in the nephrology department of the hospital had survived for more than five years. So a consistent improvement in the QOL of ESRD patients due to patient counseling could be considered as a compelling part of treating ESRD patients (Figure 1).

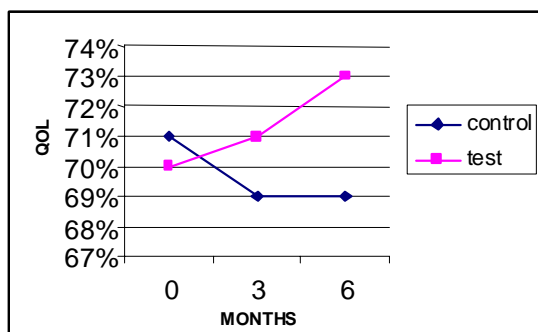


Figure 1. Health related quality of life with patient counseling

DISCUSSION

Impact of patient counseling for six months was remarkable. While comparing the slightly declining or constant QOL in control group; patients under counseling (test group) have shown a trend of improving the QOL. The study shows that patient counseling can improve health related QOL by improvement awareness and removing the misconceptions about the disease process and its management from the patients. Dietary compliance was observed to be a key factor in improving QOL

of patients undergoing chronic hemodialysis. Patients were given a minimum fifteen minutes of unstructured counseling at least once on every alternative visit. Specific questions were noted and answered on their next visit. Available materials or books were given to the patients who requested for reading it. Improvement in QOL was promising and consistently progressing for six months. In addition to other supportive care that the patient was receiving from other health professionals in the dialysis unit MTM is anticipated to provide a much better average QOL and life expectancy in the long run. It should be made mandatory by law that all chronic disease patients should get MTM along with nursing care. As per the report from western world, 20 years of survival with ESRD is common place. In India only few patients get dialysis and only 5% survive for few years. And survival of about eight to ten years is a surprising.

CONCLUSIONS

Most of the kidney disease patients are experiencing malnutrition. Medication dosage adjustment is another important area in management of ESRD. Classical three times a week HD or daily HD is not feasible here due to high rate of inconvenience and financial burden in ESRD patients. Some patients knew very little and some knew nothing at all except for the color of the medication they were taking. Data from the study shows the impact of patient counseling as promising in improving health related QOL in ESRD. Awareness of patients on diet and medication through patient counseling was found to be very effective in improving QOL in HD patients.

CONFLICT OF INTEREST

None declared.

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