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Research Article

**IMPACT OF DIALYSIS ON QUALITY OF LIFE OF PATIENTS
IN A TERTIARY CARE HOSPITAL AT CHITRADURGA**Anjana Sanjay¹, Anuja Aleyamma Mathew¹, Yogananda R¹,
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Abstract:**Background:** The assessment of QOL is an essential element of health care evaluation and helps suggest suitable measures to be taken to increase the QOL of patients with end-stage renal disease.**Objectives:** To analyse quality of life of dialysis patients. To assess the awareness of dialysis patients regarding their treatment.**Method:** A prospective observational study in Basaveshwara Medical College Hospital and Research Center, Chitradurga city over a period of six months. Patients who are undergoing hemodialysis of both genders are included in the study. The questionnaire was provided to assess quality of life and awareness.**Results:** Total 103 patients were enrolled in the study. 33.1% were females and 66.9% were males. Among them most of them are in age group of 41-50 (21.4) also 55 of total patients are illiterate and 48 are literate.**Conclusion:** Proper education regarding the health and the process of dialysis can improve the subject QOL.**Keywords:** Quality of life, Hemodialysis, Awareness.**Corresponding author:****Dr. Yogananda R,**

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INTRODUCTION:

Dialysis is a treatment that uses machines for filtering and purifying the blood. If the functions of the kidney become failed, dialysis is performed. Damaged kidney is the main cause of chronic renal failure. Based on GFR there are 5 stages of CRF. The stage 5 is called end-stage renal disease. The preferred method for treating end-stage renal disease is by carrying out dialysis, by the time about 90 percent of kidney function fail and GFR may fall down below 15. Dialysis helps in removing the waste, salts and extra water, which will prevent the accumulation. It also helps in maintaining the safe levels of potassium, sodium and bicarbonate.

Dialysis could be associated with moderate (hypotension, muscle cramps, anaphylactic reactions) to severe (cardiovascular diseases) complications. Ongoing inflammation is the main cause for diseased kidney, which does not respond to medication. Chronic inflammation disturbs the normal functioning of kidneys, resulting in the accumulation of metabolic waste in the body. Thus, dialysis is performed.

There are three primary and two secondary types of dialysis: hemodialysis (primary), peritoneal dialysis (primary), hemofiltration (primary), hemodiafiltration (secondary) and intestinal dialysis (secondary). Chronic kidney disease (CKD) is an important cause of morbidity and mortality worldwide. Individual, social, and economic consequences of CKD are enormous. According to 2013 Global Burden of Disease study, CKD accounted for 956,200 deaths worldwide, which was approximately 134% increase from that of 1990. A large number of screening programs conducted in countries with high per-capita income have demonstrated the prevalence of CKD in the general adult population to be in the range of 10-13%.

The World Health Organization (WHO) has defined QOL as “an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns”. Many studies have evaluated QOL with generic as well as disease-specific instruments. The assessment of QOL is an essential element of health care evaluation and helps suggest suitable measures to be taken to increase the QOL of patients with end-stage renal disease.

Haemodialysis is not a cure for chronic kidney disease but helps to prolong and improve a patient’s life. However, patients on haemodialysis often experience complications such as cardiovascular disease which

decrease their QOL. Furthermore, co-morbidities, such as anaemia, diabetes mellitus, hypertension, dyslipidaemia and thyroid disorders, greatly impair the QOL of patients on haemodialysis, negatively affecting their physical, social, financial and psychological well-being. Studies show that because of lack of awareness, patients often do not come for timely dialysis until severe co-morbidities develop. Several studies have shown that regular pre-dialysis attendance helps to provide the patient with proper education and thereby achieve better QOL.

Improvement in the QOL has become the major treatment goal in end-stage renal disease patients. Therefore, the aim of this study was to evaluate the QOL of patients on haemodialysis in the dialysis unit of Basveshwara Medical College Hospital and Research Center, Chitradurga, Karnataka, India.

Objectives:

- To analyse quality of life of dialysis patients.
- To assess the awareness of dialysis patients regarding their treatment.

METHODOLOGY:**Study design:**

This was a Prospective Observational study.

Study site:

The study was conducted at Basaveshwara Medical College Hospital and Research Center, Chitradurga, Karnataka.

Study period:

The study was conducted over a period of six months.

Study subjects:

This study has included the patients undergoing dialysis on dialysis unit.

Inclusion Criteria:

- Patients from both gender above 18 years having renal failure.
- Patients who were willing to participate in the study.
- Patients admitted on dialysis unit only.

Exclusion Criteria:

- Pregnant woman
- Patients undergoing peritoneal dialysis.

Ethical approval:

The study was approved by the Institutional Ethical Committee of Basaveshwara Medical College Hospital & Research Centre, Chitradurga, Karnataka.

Sources of data:

- Interacting with patient and representative.
- Patient medical records.
- Evaluation of questionnaires.

Study procedure:

This was a prospective observational study carried out for a period of six months after getting approval from

Institutional Ethical Committee. This study was conducted in Basaveshwara Medical College Hospital and Research Center, Chitradurga. Before conducting the study, permission was taken from the patients and their representatives, by explaining the details of study and its importance. Patients were selected from dialysis unit, firstly they were given self-designed and validated questionnaire regarding both quality of life and awareness regarding their treatment and were evaluated.

Statistical analysis:

Data was collected and were entered in Microsoft Excel sheet which was analyzed with SD mean using latest version of SPSS (latest version 19).

RESULTS:

Details of age classification: A total of 103 subjects were found during the study period. The age group among them are classified as: 21-30 (16.5%) to 81-90 (3.9%).

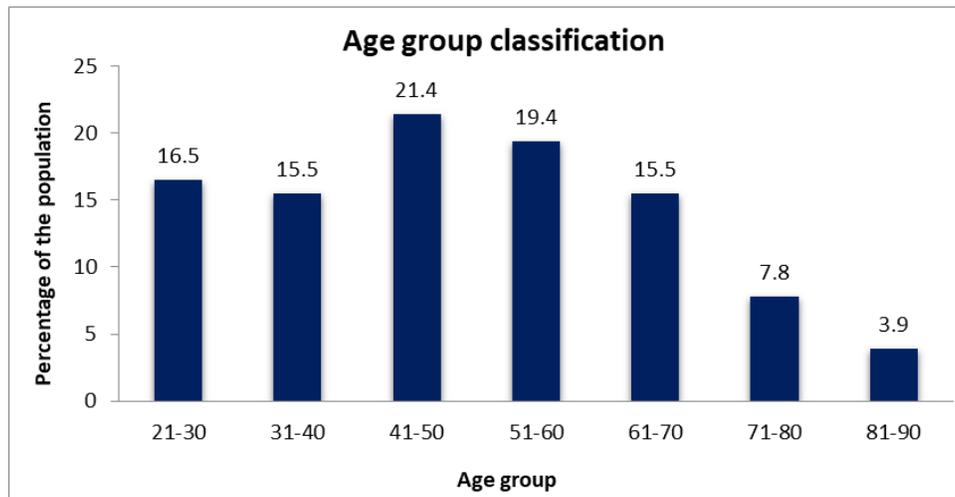


Figure 1: Age group classification

Details of gender classification: Out of 103 subjects 34 (33.1%) were females and 64 (66.9%) were males.

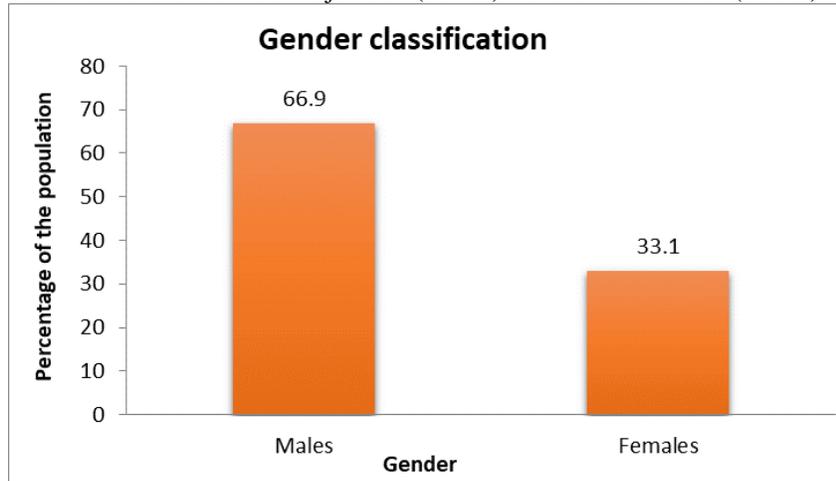


Figure 2: Gender classification

General health status of study subjects: Out of 103 subjects 75 (72.8%) have fair health status, 24 (23.3%) have good health status and 4 (3.9%) have poor status.

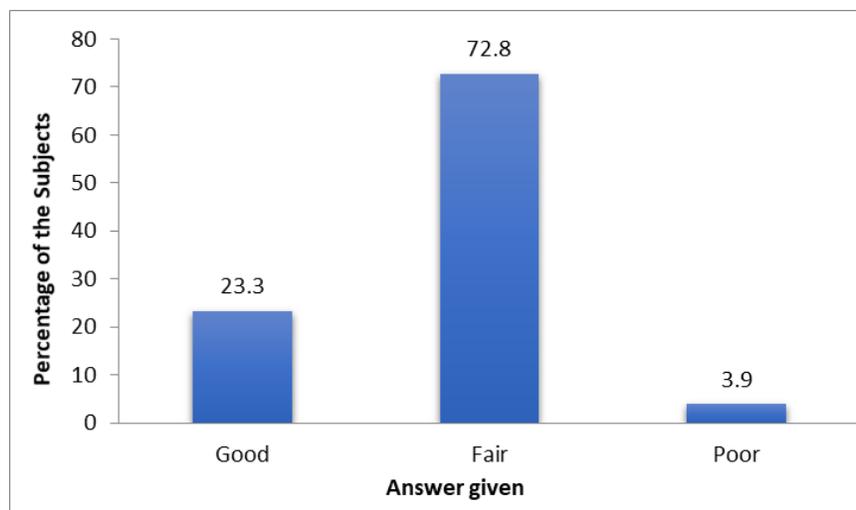


Figure 3: General health status of study subjects

Limitations of activities: Out of 103 subjects 45 (46.6%) has little limitation in activity. whereas 9 (8.7%) has no limitation in any activity.

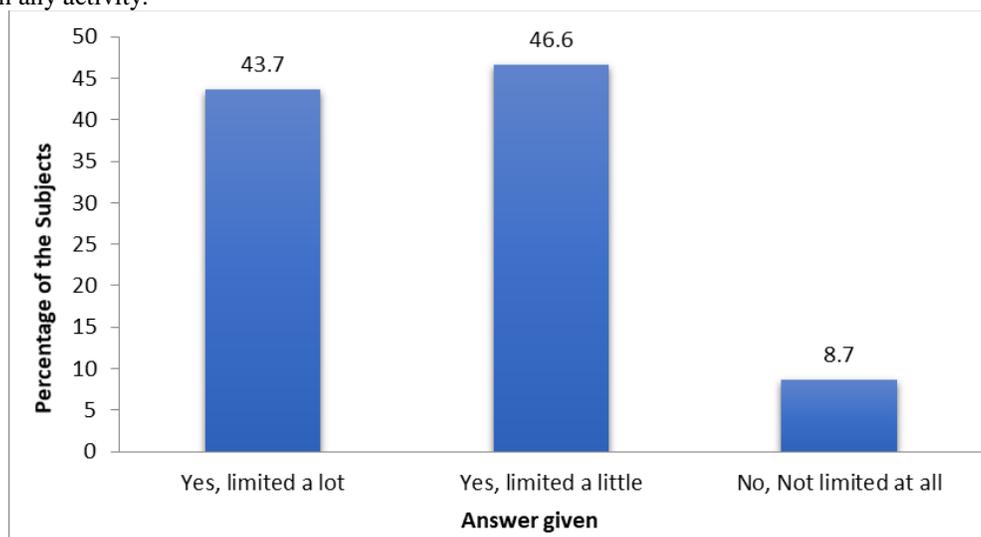


Figure 4: Limitations of activities

Patients' awareness - was assessed with question - "Do you think dialysis is beneficial?"

Out of 103 subjects 31 (65.5%) illiterate and 36 (64.6) literates are thinking that dialysis is beneficial for them.

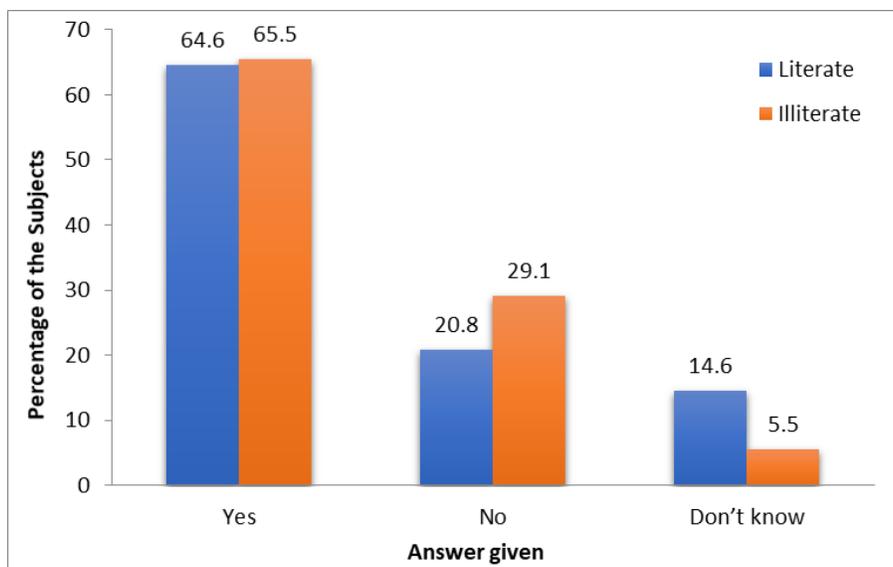


Figure 5: Patients' awareness

DISCUSSION:

This was a prospective interventional study, which was conducted in Basaveshwara medical college and research centre (first med dialysis center). Hemodialysis is a medical procedure to remove fluid and waste products from the blood and to correct the imbalance of electrolyte. This is accomplished by a machine called dialyzer, which is also called artificial kidney. Hemodialysis is used to treat both acute and chronic kidney failure.

The Global Burden of Disease (GBD) 2015 study estimated that, in 2015, 1.2 million people died from kidney failure, an increase of 32% since 2005. In 2010, an estimated 2.3–7.1 million people with end-stage kidney disease died without access to chronic dialysis. Additionally, each year, around 1.7 million people are thought to die from acute kidney injury. Overall, therefore, an estimated 5–10 million people die annually from kidney disease. Kidney disease is associated with a tremendous economic burden. High-income countries typically spend more than 2–3% of their annual health-care budget on the treatment of end-stage kidney disease, even though those receiving such treatment represent under 0.03% of the total population. In 2010, 2.62 million people received dialysis worldwide and the need for dialysis was projected to double by 2030. Worldwide, important risk factors for kidney disease include diarrhoeal diseases, HIV infection, low birth weight, malaria and preterm birth, all of which are also leading global causes of DALYs.

Risks of kidney disease span the life-course and environmental, infection and lifestyle etiologies. If risk factors are identified early, acute kidney injury and chronic kidney disease can be prevented and, if kidney disease is diagnosed early, worsening of kidney function can be slowed or averted by inexpensive interventions, several of which are on the World Health Organization's (WHO's) so-called best buys list for non-communicable disease management. Such interventions include. A total of 103 patients were enrolled in the study. The patients who participated in the study were at the age group of above 18, majority of the patients were at the age of between 41–50 years. Out of 103 patients, 69 (66.9%) was males and 34 (33.1%) were females. In this study 25.5% patients were aware about dialysis and 74.5% are unaware about the condition.

CONCLUSION:

According to the analyzed results and from the view of literature, the conclusions made are:

- Knowledge regarding the dialysis has been improved for the patients.
- Daily dietary habits and life style of the patients have been improved.
- The p-value is (0.006) which determines highly significant, hence the alternative hypothesis (Yes there is the strong relation between the literate, illiterate and knowledge regarding dialysis) is proved.
- Proper education regarding the health and the process of dialysis can improve the subject QOL.

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