



## A SURVEY OF KNOWLEDGE ABOUT KIDNEY DISEASE AMONG PATIENTS OF CHRONIC KIDNEY DISEASE.

### General Medicine

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### ABSTRACT

**Aims:** The aim of present study was to investigate the knowledge and awareness about CKD in hypertensive patients.

**Materials and Methods:** This cross sectional, survey among patients of CKD attending medicine outpatients department. Consenting patients provided their sociodemographic information and asked to respond multiple choice questionnaire.

**Results:** Sample size was 100, (74:26, male:female) aged 18-60 years, mean age of  $63.37 \pm 4.28$  with mean years of education were  $10.45 \pm 2.19$  years. 87 respondent correctly answered about function of kidney, 90% and 88 % respectively considered hypertension and diabetes as causative factor. There was poor awareness about association of healthy bones (12%), obesity (23 %), heart problems (45 %).

**Conclusions:** The basic knowledge and awareness about CKD in patients was found to be average and selectively discrete in our survey.

### KEYWORDS

Knowledge; CKD Awareness; CKD.

### INTRODUCTION

Chronic kidney disease (CKD) may be defined as decreased kidney function, that is a glomerular filtration rate (GFR) of less than 60 mL/min per 1.73 m<sup>2</sup>, or markers of kidney damage, or both, of at least 3 months duration [1, 2]. CKD is a disease of public health importance, which causing causing > 500,000 deaths since 1990 [3,4]. Thus knowledge and awareness of CKD is crucial to prevention and mortality reduction from CKD. Assessment and promoting knowledge about CKD and CKD awareness are critical for improving CKD control and reducing further risk of complications and the recommendation given that knowledge of kidney disease and symptoms of its impairment should be communicated to patients [5].

The aim of this study was to examine whether there are basic knowledge and awareness about CKD in patients of CKD by using objectively measured self-reports questionnaire. Also in process opportunity will be used to provide adequate and essential information to participants.

### MATERIALS AND METHOD

The aim of the present study was to assess for Knowledge and Awareness about kidney disease (CKD) in chronic kidney disease patients. This study was conducted at medical out patients department of a tertiary care medical college hospital, of Jharkhand, India. It was a cross-sectional study carried out over a six month period (May 2018-October 2018). All adult patients aged 18-60 years, suffering from CKD, who satisfied the inclusion criteria for the study and consented were recruited. All recruited patients were requested to complete a questionnaire about their socio-demographic data sheet and thereafter questionnaire about knowledge and awareness about CKD was applied.

### Subjects

Subject patients were included from both sexes within age group 18 to 60 years, who were visiting at medicine outpatient department for management of CKD. The exclusion criteria included patients with unstable or life-threatening medical conditions, diabetes, fever, infective illness etc. Other exclusion conditions were comorbid diagnosis of substance dependence or psychiatric disorders. These patients were examined clinically after taking detailed history about the illness and their sociodemographic variables.

### Tools

Socio-demographic Data Sheet: The socio demographic data sheet included age and gender of the patients, educational qualification, religion and socio economic class of the patients.

**CKD knowledge and awareness questionnaire:** It was created by us with discussion to various faculties and patients of CKD. It consisted 16 questions with multiple options to choose. Patients were asked to read each question and place a tick against the reply that came closest to how they know.

**Procedure:** It was a cross sectional observational study. All subjects were assessed for inclusion – exclusion criteria, and on qualification they were requested to fill up Socio-demographic data sheet or asked verbally and filled up by investigators. The CKD knowledge and awareness questionnaire was applied on all subjects and recorded. After completion of the assessment, brief educative information about CKD was provided to patients and their family members.

**Statistical Analysis:** The collected data of all students was statistically analyzed, using Statistical Package for Social Sciences (SPSS, Inc., Chicago, Illinois) version 10.0. Data analysis of socio demographic profile included means and standard deviations for continuous variables and expression as percentage for categorical variables.

### RESULTS

A total of 100 patients (74 % male and 26 % female) with age 18-60 years (mean age of  $63.37 \pm 4.28$ ) were included for the study, the mean years of education were  $10.45 \pm 2.19$  years (table -1). there was a specifically designed 16 common awareness questionnaire, which were multiple choice types to assess the knowledge regarding CKD.

The first question was on function of kidney and 87 respondent correctly answered the question and 23 persons responded wrongly. About 90% of patients were aware of that CKD is systemic consequences of hypertension, where as 88 % considered diabetes as responsible causative factor. There was on 12 % respondent agreed to the statement that kidney help healthy bones. 23 % considered obesity, 45 % considered heart problems, 84 % considered dehydration as risk factor for CKD. The correct response was 91% about CKD leading to hypertension. Regarding symptoms experienced by the patients, the symptoms of “oedema of lower limb” was most frequent (97%), followed by loss of appetite (93%), weakness (90%), facial swelling (86%) and nausea vomiting was 76%. About 89 % considered salt and sugar as most important diet restriction, followed by 78% by protein control. However internet search as a source of information in addition to treating physician was considered by (30%) Table 2 summarizes the sample characteristics and survey findings (Table - 2).

## DISCUSSION

The knowledge are essential for self care for any illness. In this study, our results provide insights into the knowledge and awareness about CKD. We attempted to explore level of information available to CKD patients in relation to various common aspects of CKD. In addition to assessing knowledge, we also provided appropriate information and corrected their incorrect knowledge.

Participants in this study had shown overall good information but had limited knowledge of the physiological role of the kidneys, especially relating to the regulation of BP, and bone development and metabolism. Participant knowledge about obesity as a CKD risk factor was also limited to 23 % only. Participants correctly identified hypertension as a risk factor but had very less awareness about heart problems and relationship of CKD and healthy bones 12% only. Suggesting selective information available to the patients but certain aspect of CKD is not known to the patients. There can be individual risk factors may be or may not be associated with an individual, but more widespread knowledge of CKD itself is required. A similar study [5] finds that there are misconception and low level of awareness and knowledge of CKD, including those with risk factors, in the community. However the sample of this study was general population, whereas in ours study we used patients suffering from CKD. Therefore a better knowledge and awareness is expected among patients in comparison to general population. Despite these need to known adverse consequences of CKD, the majority of persons with the disease, especially prior to end stage renal disease, remain unaware of their disease [6-8]. Another interesting aspect of this study revealed was regarding source of information, and most of respondents availed information provided by treating physician. Also many were self searching on internet, which is becoming a common mean for searching information and verifying facts told by treating physicians or health care providers.

There are need to investigate if there are behavioral factors that contribute to attitude and awareness in CKD in order to understand elevated risk of CKD beyond biological factors. Levels of awareness and knowledge among patients and family members must be improved to prevent CKD, its progression, and its many consequences. More research is needed to guide implementation of awareness campaigns, including determining appropriate content and target populations.

## CONCLUSION :

The basic knowledge and awareness about CKD in patients was found to be average and selectively discrete in ours survey.

**Table - 1 : Socio demographic variables of the study**

Gender	Male	74 %
	Female	26 %
Age		63.37 ± 4.28
Years of education		10.45 ± 2.19

**Table - 2 : the questionnaire and their correct response in percentage.**

1	The function of kidneys is cleaning the body and making urine.	87
2	Kidney disease caused by hypertension.	90
3	Diabetes may cause kidney disease	88
4	The kidneys help for healthy bones.	12
5	Obesity may be risk factor for CKD	23
6	Heart problems may leads CKD	45
7	Dehydration may leads to CKD	84
8	CKD may lead to hypertension	91
9	symptoms of CKD includes – Nausea Vomiting	76
10	symptoms of CKD includes – Oedema of lower limbs	97
11	symptoms of CKD includes – Facial swelling	86
12	symptoms of CKD includes - Weakness	90
13	symptoms of CKD includes – loss of appetite	93
14	Salt and sugar control is important for management	89
15	Protein control is important for management	78
16	“Internet” as Source of information in addition to doctors.	30

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