



End stage Renal disease Risk factors and Complication in karima hospital dialysis center

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ESRD is one of major health problem throughout the world, it is last stage of the CRF in which kidney fail function completely at this stage kidney stops it is function to remove impurities and control electrolytes. This is study aims to assess end stage renal disease risk factor and complication during hemodialysis. This was descriptive study aimed to assess risk factor and complication of ESRD in dialysis center in educational karima hospital convenience sample technique ,37 dialysis patient where selected , data collected used self-structured questionnaire analysis was done uses scientific package of social science SPSS. The study show there is factor impact in ESRD , 75,60% of patient suffer from hypertension ,73% of patient have similar cases in the family ,where 95% of patient do not have diabetic 98,20% of patient had no congenital kidney problem 78,40% respondent suffer from more than one type of complication , 10,18%not suffer from any complication dialysis provide educational program about risk factor that lead to end stage renal disease and complication during dialysis.

Keywords: End stage renal disease, Risk factors, Complication and Hemodialysis.

INTRODUCTION

End Stage Renal Disease (ESRD) is the last stage of the chronic renal failure in which kidneys fail to function completely at this is stage kidney stops its function to remove the impurities and control electrolytes. The symptoms of ESRD comprise less urine output, swelling of legs, face, nausea and vomiting [1].

ESRD is one of major health problems throughout the world. Several investigation have been carried out to study various risk factor of the ESRD. the United States Renal Data System (USRDS) established in 1989 this is system is the largest and most comprehensive national Chronic Kidney Disease (CKD) and ESRD surveillance system [2].The death rate due to ESRD in western countries especially in the USA is higher, but in Asian countries like Pakistan, India, Bangladesh; there are also a significant number of deaths due to ESRD [3].

Dialysis involves the movement of fluid and particles across a semipermeable membrane. There are two type of dialysis peritoneal dialysis and hemodialysis and the purpose of dialysis is to relieve symptoms of renal failure or to sustain life , to control uremia to prepare the client physically to receive a transplanted kidney and to keep the patient alive until a suitable donor kidney is found .[17]

ESRD is the last stage of the chronic renal failure in which kidneys become completely fail to function. The basic aim of our study to discover the association of End Stage Renal Disease (ESRD) with various risk factors, and detect the most complication of dialysis

MATERIALS AND METHODS

study design:

Cross section hospital base study, will be conducted aimed to identify the risk factor of end stage renal disease and complication during dialysis and the study starts at February 2023.

Study area

Karima hospital in northern state, have nine department include medical surgical department, ICU, emergency room, Gina, obsess, pediatric, dialysis, diabetic department.

Study population:

patients were diagnosed with end stage renal disease and are being treated with hemodialysis

Study variables:

Socio demographic, End stage renal disease Risk factors, Complication of Hemodialysis.

Study period:

The whole duration of the study will be in period from January to April 2023.

Data collection technique and tools:

Interview questionnaire forms using. A pilot study was carried out it aimed to test the suitability of the questionnaire to be used, regarding its estimated time of completing the questionnaire. This study revealed that the questionnaire was suitable.

Data Analysis and presentation:

All the data was organized in a master data sheet in windows Microsoft Excel spreadsheet and analyzed using SPSS – 16 with a level of significance (P) at 0.05. Frequency, percentage, and mean were used to determine the end stage renal disease risk factors and complication, and chi-square test was used to determine the association between dependent and independent variables.

Ethical consideration:

The study had obtained the ethical clearance from the ethics committee at ministry of health northern state NO (51-321) before data collection. explaining the major aim of the research was said at the beginning of the interview in order to give the participants clarifications about the research. By agreeing to answer the survey, that has considered as approval of the participants to involving in the study. Additionally, all of the collected data were kept with the researchers in order to protect persons' confidentiality who involved in this study.

RESULTS

Table NO : (1) show the Distribution of age ;-

Item	Frequency	Percent	Valid Percent	Cumulative Percent
15 - 20 year	3	8.1	8.1	8.1
21- 30 year	2	5.4	5.4	13.5
31- 40 year	4	10.8	10.8	24.3
41 - 50 year	7	18.9	18.9	43.2
more than\ 50 year	21	56.8	56.8	100.0
Total	37	100.0	100.0	

Table 2: show the Distribution of blood pressure

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	28	75.7	75.7	75.7
No	9	24.3	24.3	100.0
Total	37	100.0	100.0	

Table 3: show Distribution Of gender

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Male	20	54.1	54.1	54.1
Female	17	45.9	45.9	100
Total	37	100	100	

Table 4: show the Distribution of onset of Hyperion

Item	Frequency	Percent	Valid Percent	Cumulative Percent
15 -21 year	3	8.1	10.7	10.7
21 -30 year	2	5.4	7.1	17.9
31-40 year	4	10.8	14.3	32.1
41- 50 year	4	10.8	14.3	46.4
more than 50 year	15	40.5	53.6	100.0
Total	28	75.7	100.0	

Table 5 : show Distribution of obesity:-

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	11	29.7	29.7	29.7
No	26	70.3	70.3	100.0
Total	37	100.0	100.0	

Table 6:show Distribution of the degree of relationship

Item	Frequency	Percent	Valid Percent	Cumulative Percent
First degree	7	18.9	70.0	70.0
Second degree	2	5.4	20.0	90.0
Third degree	1	2.7	10.0	100.0
Total	10	27.0	100.0	

Table 7 : show Distribution of onset of diabetic

Item	Frequency	Percent	Valid Percent	Cumulative Percent
before 5 year	1	2.7	14.3	14.3
before 15 year	4	10.8	57.1	71.4
before 20 year	1	2.7	14.3	85.7
before 50 year	1	2.7	14.3	100.0
Total	7	18.9	100.0	

Table 8::show Distribution Of diabetic

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	2	5.4	5.4	5.4
No	35	94.6	94.6	100
Total	37	100	100	

Table 9 : show the Distribution of congenital problem

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	4	10.8	10.8	10.8
No	33	89.2	89.2	100.0
Total	37	100.0	100.0	

Table 10: show the Distribution of similar cases in family:

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	10	27	27	27
No	27	73	73	100
Total	37	100	100	

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	11	29.7	29.7	29.7
No	26	70.3	70.3	100.0
Total	37	100.0	100.0	

Table 11 show the Distribution of the kidney cysts:

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	29	78.4	78.4	78.4
No	8	21.6	21.6	100
Total	37	100	100	

Table12::show the Distribution of the use cigarettes

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	5	13.5	13.5	13.5
No	32	86.5	86.5	100
Total	37	100	100	

Table 13: show the Distribution of the kidney infection:-

Item	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	5	13.5	13.5	13.5
No	32	86.5	86.5	100
Total	37	100	100	

Table 14 : show the Distribution of complication caused by dialysis

Item	Frequency	Percent	Valid Percent	Cumulative Percent
low blood pressure +muscle spasm +nausea +Vomiting+Dizziness +Heartbeat strike +Loss of appetite +Bone pain	1	2.7	3.0	3.0
low blood pressure +High blood pressure + nausea +Vomiting+Itchy skin + Dizziness +Heartbeat strike +Loss of appetite +Bone pain + muscle spasm	1	2.7	3.0	6.1
High blood pressure +muscle spasm + nausea +Vomiting+Headache +Itchy skin + Dizziness +Heartbeat strike +Loss of appetite +Bone pain +Chill +Confusion	1	2.7	3.0	9.1
low blood pressure +Vomiting+Headache +Heartbeat strike +Loss of appetite +Bone pain +Chill +Pneumonia	1	2.7	3.0	12
low blood pressure +High blood pressure +muscle spasm + nausea +Vomiting+Headache +Itchy skin + Dizziness +Heartbeat strike +Loss of appetite +Bone pain +Chill +Pneumonia	1	2.7	3.0	15.2
low blood pressure + nausea +Vomiting+Headache +Heartbeat strike +Loss of appetite +Bone pain +Chill +Pneumonia	1	2.7	3.0	18.2
low blood pressure +muscle spasm + nausea +Vomiting+Headache +Heartbeat strike +Loss of appetite +Bone pain +Chill +Pneumonia	1	2.7	3.0	21.2
low blood pressure + nausea +Vomiting+Heartbeat strike +Loss of appetite +Bone pain +Chill	1	2.7	3.0	24.2
High blood pressure +muscle spasm +Headache +Itchy skin +Bone pain +Chill +Pneumonia	1	2.7	3.0	27.3
low blood pressure +Bone pain +Chill +Pneumonia	1	2.7	3.0	30.3
low blood pressure +High blood pressure +muscle spasm + nausea +Vomiting+Headache +Itchy skin +High blood sugar +Bone pain +Chill	1	2.7	3.0	33.3
low blood pressure +muscle spasm +Bone pain +Chill	1	2.7	3.0	36.4
low blood pressure + nausea +Headache +Heartbeat strike +Bone pain +Chill	1	2.7	3.0	39.4
low blood pressure +Vomiting+Headache +Heartbeat strike +Bone pain +Chill	1	2.7	3.0	42.4
Bone pain +Chill	1	2.7	3.0	45.5
low blood pressure +Bone pain +Chill	1	2.7	3.0	48.5
High blood pressure +muscle spasm + Dizziness +Bone pain +Chill +Confusion	1	2.7	3.0	51.5
low blood pressure +muscle spasm + nausea +Vomiting+Headache +Itchy skin +douche	1	2.7	3.0	54.5
low blood pressure + nausea +Vomiting+Headache +Heartbeat strike +Bone pain	1	2.7	3.0	57.6
Chill	1	2.7	3.0	60.6
low blood pressure +High blood pressure + Dizziness	1	2.7	3.0	63.6
low blood pressure +douche	1	2.7	3.0	66.7
Itchy skin	1	2.7	3.0	69.7

low blood pressure +Chill	1	2.7	3.0	72.7
muscle spasm +Chill	1	2.7	3.0	75.8
low blood pressure +Chill +Confusion	1	2.7	3.0	78.8
High blood pressure +Bone pain	1	2.7	3.0	81.8
Bone pain	1	2.7	3.0	84.8
low blood pressure +Headache + Dizziness +Heartbeat strike +Chill	1	2.7	3.0	87.9
low blood pressure +High blood pressure +muscle spasm +Itchy skin +Heartbeat strike +Chill	1	2.7	3.0	90.9
Headache	1	2.7	3.0	93.9
low blood pressure + nausea +Vomiting+Headache +Bone pain +Chill	1	2.7	3.0	97.0
Confusion	1	2.7	3.0	100.0
No Thing	4	10.8	100.0	
Total	37	100.0		

DISCUSSION

This study was conducted to the patient in karima dialysis center to assess risk factor and complication of ESRD, the study group involve 37 patient. After analyzing the data our study showed the majority of the patient are males (54%) , and that 95% of the respondents do not suffer from diabetes, that most study group suffered from hypertension (75.6%) , most patient is elderly over 50years (56.8%), 73% of patients have similar cases in the family from first degree 70% , 20% from second degree while only 10% third degree , 70.30% of the respondents do not suffer from obesity , And that 78% of the respondents did not use cigarettes while 22% of the respondents used cigarettes, and that 57.10% of those who used cigarettes used them 15 years ago and 14.30% used cigarettes 5 years ago, and that 89.20% of the respondents do not suffer from any congenital kidney problem, and that 70.30% of the respondents do not suffer from kidney cysts, , and 87% Of the respondents do not suffer from kidney infections, while only 13% of the respondents suffer from kidney infections.

The study proved 78.4% of patient suffer from more than one type of complication and 10.80% do not suffer from any complication of dialysis. Based on study the most study group suffer from hypertension 75.6% , 73% of patient have similar case in family and 78.4% of the total respondents suffer from more than one type of hemodialysis complication .

The study highlight the need for educational program to those have high risk to be ESRD and educational to patient in dialysis about complication and how can prevent and cure

CONCLUSION

According to the study, a third of the sample had more than one type of dialysis complication, and the majority of the study group has high blood pressure. There are also

patients with a family history of the disease.

The study emphasizes the necessity for an educational program for those who are at a high risk of developing ESRD as well as education for dialysis patients about the problems and how to avoid and treat them.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interests

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AUTHOR CONTRIBUTIONS

All the authors listed have made a substantial and intellectual contribution to the work and approved it for the publication.

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