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XEROSTOMIA AND THIRST DISTRESS AMONG PATIENTS UNDERGOING HAEMODIALYSIS: A DESCRIPTIVE STUDY

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ABSTRACT End Stage Renal Disease (ESRD) is the result of kidney function deterioration over a period of time. Treatments that are currently available for ESRD include dialysis and renal transplantation. Patients with chronic kidney disease on dialytic therapy have more intense thirst and xerostomia (dry mouth), and also need to maintain a diet with fluid restriction to prevent hypertension, acute lung edema and congestive heart failure. Overall, estimated prevalence of CKD is 13.4% and patients with ESRD needs renal replacement therapy is estimated between 4.902 and 7.083 million. Recently, nearly 4 million people in the world are living on Kidney replacement therapy and haemodialysis. In Indian, chronic kidney registry, the most identified causes of kidney failure were diabetes, hypertension and glomerulonephritis, where as the cause was not discernible in about 16% of patients. Dubbed chronic kidney disease of unknown etiology, such cases are reported from all the country, with the states of Andhra Pradesh, Maharashtra, Goa and Tamil Nadu reporting a particularly high burden. The exact causes of CKD of unknown etiology are a topic of ongoing research, with recurrent dehydration. A study was conducted to assess the Xerostomia and Thirst Distress among 100 patients undergoing haemodialysis at a selected Hospital, Coimbatore. The result revealed that 58(58%) of patients had no Xerostomia , 42(42%) experienced Xerostomia, 62(62%) had Thirst distress and 38% of patients had no Thirst distress. The correlation value was 0.88. There is a positive correlation between xerostomia and thirst distress.

KEYWORDS : End Stage Renal Disease, Xerostomia, Thirst Distress, Haemodialysis

INTRODUCTION

"I fight for my health every day in ways most people don't understand. I'm not lazy, I'm a warrior."

Soulcarrot

Chronic kidney disease is a worldwide public health problem, with adverse outcome of kidney failure cardiovascular disease and premature death[1]. Chronic kidney disease is a complex condition in which the kidney is unable to function properly as a result of structure (or) functional damage that leads to excess fluids and waste accumulation in blood[2].

Haemodialysis is a standard treatment of end stage renal disease (or) failure that has been practiced now for nearly quarter of a century kidney disease security is classified into five stages according to the level of glomerular filtration rate[3].

Patients with chronic kidney disease on dialytic therapy have more intense thirst and xerostomia (dry mouth), and also need to maintain a diet with fluid restriction to prevent hypertension, acute lung edema and congestive heart failure[4].

Statement Of The Problem

A Study to Assess the Xerostomia and Thirst Distress among Patients Undergoing Haemodialysis at KG Hospital, Coimbatore.

Objectives

- To assess the level of xerostomia among patients undergoing haemodialysis
- To assess the level of thirst distress among patients undergoing haemodialysis.
- To correlate xerostomia and thirst distress among patients undergoing haemodialysis.
- To associate the level of xerostomia with selected demographic and clinical variables.
- To associate the level of thirst distress with selected demographic and clinical variables.

Methodology

In this study, descriptive research design was adopted. The study was conducted for the haemodialysis patients at the nephrology department of KG hospital Coimbatore. Totally 100 samples were selected by purposive sampling technique. The demographic and the clinical data were collected by using structured questionnaire mehod and the patient were asked to indicate their response by putting() mark against each statement in xerostomia inventory and thirst distress inventory.

RESULTS AND DISCUSSION

Table 1: Distribution Of Level Of Xerostomia Among Haemodialysis Patients With Chronic Kidney Disease.

S. NO	Xerostomia Inventory	Frequency (NO)	Percentage (%)
1.	Absent	58	58
2.	Present	42	42

On assessing the distribution of level of Xerostomia among haemodialysis patient with chronic kidney diseases, it was found that 58(58%) of patients had no Xerostomia and 42 (42%) of patients experienced Xerostomia,

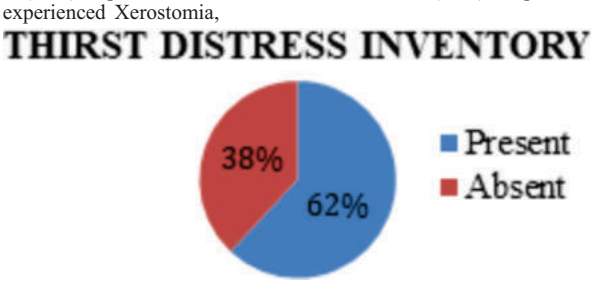

Figure 1: Distribution Of Level Of Thirst Distress Among Haemodialysis Patients With Chronic Kidney Disease

On assessing the distribution of level of Thirst distress among haemodialysis patient with chronic kidney diseases,it was found that the samples were having 62% of patients experiencedThirst distress and 38% of patients had no Thirst distress

Table 2: Correlation Between The Level Of Xerostomia And Thirst Distress Among Haemodialysis Patients.

S. No	Variables	Mean	SD	Correlation(r)
1.	Xerostomia	22.26	7.210	0.88
2.	Thirst distress	17.1	5.262	

The above table shows that there is a positive correlation between the level of Xerostomia and Thirst Distress among haemodialysis patients.

Table 4.6: Association Between Level Of Thirst Distress And Selected Demographic Variables. n =100

S. No	Demographic Variables	Level Of Xerostomia		Calculated Value Of χ^2	Tabulated Value Of X At 5% Of Level
		Above Mean	Below Mean		
1.	Age			1.75	NS
	a) 40-50	10	21		
	b) 51-60	32	32		
2.	Gender			0.024	NS
	a) Male	31	42		
	b) Female	11	16		
3.	Personal Habits			1.24	NS
	a) No Bad Habits	5	2		
	b) Bad Habits	37	56		

Clinical Variables					
1.	BMI			0.004	NS
	a) No Obese	20	28		
	b) Obese	22	30		
2.	CKD Duration			0.12	NS
	a) Below 10	39	54		
	b)Above 10	3	30		
3.	Co-morbid Illness			0.002	NS
	a) Present	4	54		
	b) Absent	2	4		
4.	First Dialysis			21.89	S
	a) 1-5	19	39		
	b) 5-10	12	30		
5.	Haemodialysis PER Week			5.19	S
	a) 2 Times	15	33		
	b) 3 Times	28	24		
6.	IWG			0.06	NS
	a) Less than 2	5	6		
	b) Greater than 2	37	52		
7.	Urine Output			3.10	NS
	a) Less than 500ml	6	17		
	b) Greater than 500ml	36	41		
8.	Xerogenic Medication			0.31	NS
	a) Yes	23	35		
	b) No	19	23		
9.	Quantity Of Fluids			1.58	NS
	a) Below 1000ml	40	51		
	b) Above 1000ml	2	7		

The result shows that the calculated value of chi-square of xerostomia with first dialysis year [21.89%] and haemodialysis per week [5.19%] is more than the tabulated value. Therefore it shows that there is an association between xerostomia with first dialysis year and xerostomia with haemodialysis per week.

There is no association between xerostomia and selected demographic and clinical variables such as age, gender, personal habits, BMI, CKD duration, co-morbid illness, IWG, urine output, xerogenic medication and quantity of fluids.

Table : Association Between Level Of Xerostomia And Selected Demographic Variables n =100

S.NO		Demographic Variables	Level Of Thirst Distress	Calculated Value Of X^2	Tabulated Value Of X At 5% Of Level
		Above Mean	Below Mean		
1.	Age			0.012	NS
	A) 40-50	14	17		
	B) 51-60	32	37		
2.	Gender			1.611	NS
	A) Male	34	41		
	B) Female	12	13		
3.	Personal Habits			0.99	NS
	A) No Bad Habits	5	2		
	B) Bad Habits	41	52		
Clinical Variables					
1.	BMI			0.59	NS
	a) No Obese	24	24		
	b) Obese	22	30		
2.	CKD Duration			0.045	NS
	a) Below 10	43	50		
	b) Above 10	3	4		
3.	CO-MORBID Illness			2.35	NS
	a) Present	1	54		
	b) Absent	5	40		
4.	First Dialysis			5.207	S
	a) 1-5	22	32		
	b) 5-10	9	37		
5.	Haemodialysis Per Week			11.63	S
	a) 2 Times	15	33		
	b) 3 Times	34	18		
6.	IWG			0.23	NS
	a) Less than 2	4	7		
	b) Greater than 2	42	47		
7.	Urine Output			0.013	NS
	A) Less than 500ml	11	14		
	b) Greater than 500ml	34	41		
8.	Xerogenic Medication			0.466	NS
	a) Yes	25	33		
	b) No	21	21		
9.	Quantity Of Fluids			0.012	NS
	a) Below 1000ml	43	48		
	b) Above 1000ml	2	7		

The calculated value of chi-square of thirst distress with first dialysis year [5.27%] and haemodialysis per week [11.63%] is more than the tabulated value.Therefore it shows that there is an association between thirst distress with first dialysis year and thirst distress with haemodialysis per week.

There is no association between thirst distress and selected demographic and clinical variables such as age, gender, personal habits, BMI, CKD duration, co-morbid illness, IWG, urine output, xerogenic medication and quantity of fluids.

CONCLUSION

The present study was conducted to assess the xerostomia and level of thirst distress among haemodialysis patients in K.G. hospital. It was concluded that the xerostomia was present in 42% and absent in 58% of patients. The findings also shows that thirst distress was present in 62% and absent in 38% of patients. It was found that there is a positive correlation (0.88) between xerostomia and thirst distress. Also it was found that there is an association between xerostomia and first dialysis year, haemodialysis per week. It also shows that there is an association between thirst distress and first dialysis year and haemodialysis per week.

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