

**Original Article**

**Frequency of symptomatology in patients on hemodialysis: a single center experience**

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**ABSTRACT**

**Objective**

To estimate frequency of symptomatology in patients of chronic renal failure on hemodialysis.

**Patients and Methods**

This cross-sectional descriptive study was conducted in the department of nephrology, Combined Military Hospital (CMH) Lahore from March to July 2010. Forty two patients (27 males, 15 females) of end stage renal disease on hemodialysis were selected with convenient sampling. Patients were surveyed by using a specific history performa. Written informed consent was obtained from all study participants.

**Results**

Out of 42 patients, 27 (64.3%) were male and 15 (35.7%) female. The age ranged between 20 to 75 years The frequency of symptoms was: fatigue (81%), anorexia (59.5%), vomiting (54.8%), bone/body pain (52.4%), nausea, sleep disturbance, pruritis and flank pain (42.9%), cramps (40.5%), oliguria (33.3%), dysuria and anuria (21.4%) and hematuria (14.3%).

## **Conclusion**

Fatigue was the commonest complaint; 80% in females and 81% in male patients. Other symptoms were anorexia, body aches and nausea. (Rawal Med J 2012;37:24-26).

## **Key Words**

Hemodialysis, end stage renal disease, urea, creatinine.

## **INTRODUCTION**

Patients with end stage renal disease (ESRD) on dialysis experience a broad range of symptoms, some with potentially negative effect on functioning and well being of patients. Even though hemodialysis (HD) prolongs the life of the patients, it also causes emergence of complaints and adjustment problems. The aim of the present study was to evaluate the actual prevalence of symptoms in a large population of HD patients from dialysis unit.

## **PATIENTS AND METHODS**

This cross-sectional study was carried out from March 2010 to July 2010 at CMH Lahore Medical College, Lahore, Pakistan. Acute dialysis cases were not included and only those cases were included who were stable and had no acute physical illness. Patients with past history of psychiatric illness, intracranial tumors and those with febrile illness having effects of drugs that could impair their ability to participate in the study were excluded from the study. Recent life events, vulnerable personality traits, socioeconomic status and family system, were kept in mind while conducting the study. In 60% of the cases hemodialysis was carried out 3times/week, 40% of the cases were undergoing twice weekly. Dialysis was performed according to Kidney Disease Outcome Quality Initiative (KDOQI) guidelines. Dialysis adequacy criteria used was Urea Reduction Rate (URR).

Subjects were explained the nature, purpose and procedure of the present study and written informed consent were obtained. Demographic, clinical features and other

relevant data related to fatigue, anorexia (diminished appetite), vomiting, bone/body pain, nausea, sleep disturbance, pruritis, flank pain, cramps, oliguria, dysuria, anuria and hematuria were obtained from the patients, their medical history sheets and relatives. History Performa was used by the author and final year, MBBS medical students who were specifically trained to use them. All the data was analyzed by using SPSS-16.

## RESULTS

Out of 42 patients, there were 27 (64.3%) male and 15 (34.3%) female. Age ranged from 20 to 75 years. Average hemoglobin was 10.5 gm/dl. Other average values were pre-dialysis urea 35mmol/l, creatinine 700 $\mu$ mol/l and serum albumin 34gm/l. The associated co-morbidities were diabetes mellitus in 80%, hypertension in 70%, ischemic heart disease in 50% and chronic hepatitis in 30%, (hepatitis B 20% and hepatitis C 80%).

**Table1. Gender wise distribution of symptoms.**

	<b>Males n=27</b>		<b>Females n=15</b>	
<b>Fatigue</b>	22	(81.5%)	12	(80.0%)
<b>Anorexia</b>	17	(62.9%)	8	(53.3%)
<b>Vomiting</b>	16	(59.3%)	7	(46.7%)
<b>Bone/body pain</b>	15	(55.6%)	7	(46.7%)
<b>Sleep disturbance</b>	13	(48.1%)	5	(33.3%)
<b>Pruritis</b>	8	(29.6%)	10	(66.7%)
<b>Nausea</b>	11	(40.7%)	7	(46.7%)
<b>Flank pain</b>	13	(48.1%)	5	(33.3%)
<b>Cramps</b>	12	(44.4%)	5	(33.3%)
<b>Oliguria</b>	9	(33.3%)	5	(33.3%)
<b>Dysuria</b>	5	(18.5%)	4	(26.7%)
<b>Anuria</b>	5	(18.5%)	4	(26.6%)
<b>Hematuria</b>	5	(18.5%)	1	(6.7%)

Fatigue was the commonest complaint by the patients, followed by anorexia, vomiting, nausea, bone/body Pain, sleep disturbance, pruritis, flank pain, cramps, oliguria, dysuria, anuria and hematuria (Table 1).

## DISCUSSION

In this study the effort was to find out the group of symptoms commonly complained by the patients of ESRD on HD. Fatigue is a debilitating symptom or side effect experienced by many patients on long term HD. Fatigue has a considerable effect on patient's health-related quality of life and is viewed as being more important than survival by some patients. In our study fatigue was found in 81% of patients whereas the prevalence of fatigue in other studies ranges from 60% to 97% in patients on long term HD.<sup>1-7</sup> The importance of fatigue to patients with kidney disease is underscored by the observation that 94% of HD patients endorsed a willingness to undergo more frequent dialysis if there would be an associated increase in energy level.<sup>8</sup> Despite the importance of fatigue to patients health care provider remain largely unaware of both the presence and severity of fatigue among dialysis patients.<sup>9</sup>

The prevalence and pattern of pruritis in HD patients vary in different studies. In some studies pruritis was seen more in females.<sup>10</sup> However, in most other studies, no difference was seen between men and women.<sup>11</sup> In our study, pruritis was complained by 42.9% patients and it was more prevalent in females. In other studies pruritis has been seen in 41.9% to 67% of the ESRD patients on HD.<sup>11-13</sup> The present study showed that sleep disturbance is still a major problem in these subjects, since 42.9% of our patients had sleep disturbance. Its prevalence has been reported to range from 45-59%.<sup>14-16</sup>

Patients sometimes experience muscle cramps while undergoing hemodialysis. These muscle cramps, usually in the legs, can be uncomfortable or sometimes painful. A patient should alert a healthcare team member as soon as a cramp happens to get help in

alleviating the discomfort. In our study, 40.5% of the patients had cramps, mostly in males. Appetite, a subjective desire to ingest food, is diminished in many dialysis patients. In our study anorexia was found in 59.5% of the patients, mostly males and compares with 38% seen in another study.<sup>18</sup> Other studies have shown bone/body pain to be present in 21-50% of ESRD patients on HD and are the important determinant of their quality of life as well as associated with depression.<sup>19-20</sup> In our study 52.4% of the patients have complained it.

## CONCLUSION

Our study demonstrated that commonest complaints of the patients of ESRD on HD were fatigue, anorexia, vomiting and bone/body pains. It is possible that increasing patient self-management and symptom management may be worthwhile intervention for improving functional status and quality of life thereby reducing morbidity and mortality in these patients.

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