

The relationship of depression with restless leg syndrome in hemodialysis patient's dialysis centers in Chaharmahal and Bakhtiari 2011

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ABSTRACT

Background: Hemodialysis, as the main remedy of chronic renal failure, can cause mental problems among patients receiving this treatment. These clients face depression because of being treated long-term and invasive therapeutically methods.

Materials and Methods: This is a descriptive-analytical study in which 171 patients receiving hemodialysis. They were divided in to those ones suffering from syndrome and the second group without syndrome.

Results: The results showed that the depression average grade was 47.31 ± 11.60 and 43.15 ± 10.3 , in the first and the second group. This was a significant relation.

Conclusion: Being high level of depression among these patients who suffering from restless leg syndrome, its suggested monitoring depression level intermittently.vital signs and decrease serum cortisol level in patients undergoing gynecological elective surgeries.

Key words: Depression, hemodialysis, Iran, restless leg syndrome

INTRODUCTION

Chronic renal disease is a public health problem all around the world.^[1] Chronic renal failure is an irreversible and progressive damage of renal function. It leads to fail body capability to reserve water and electrolytes and do metabolic interactions. The main remedy is renal transplantation, but the patients should receive hemodialysis up to renal transplantation time due to lack of kidneys to do transplantation surgery.^[2] The chronic renal failure is one of these disease whose spread rate in the world is 242 out of 1 million. Based on the existing statistics in Iran, an estimation of 1.200-1.600 individuals are afflicted with this disease annually.^[3]

The main problems, which these clients should undergo consist of skin and gastrointestinal problems, neural signs, anemia and lack of enough data about their disease.^[4]

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Kutner believe that one reason to choose this treatment for these clients is to feel better among them.^[5] Although this remedy leads to prolong patients' life-time, they suffer from more mental and emotional problems in comparison with healthy people.^[6] Restless leg syndrome is another important suffering, which causes emotional problem for them. The report high tendency to more their legs during sleep time and describe it as a miserable feeling. They say that it gets worse whenever their activities decrease and leads to insomnia most of the time.^[7] Hence, this study was conducted to determine the relation between depression and restless leg syndrome among patients' receiving hemodialysis.

MATERIALS AND METHODS

This was an analytical — descriptive and cross-sectional study, which was conducted in hemodialysis centers of Chaharmahal and Bakhtiari province among 171 patients in the year of 2011. The requirements for entering this study was to have medical records in hemodialysis wards, to be in the list of weekly hemodialysis, to have full consciousness and tendency to continue the cooperation. Data collection instruments were international questionnaire of restless legs syndrome and Beck depression questionnaire, which were completed by means of the interview performed by the researcher. At first to the severity of suffering from restless leg syndrome was determined by

the first questionnaire and then to affirm this diagnosis, different neural and motor exams were carried out by nephrologists to be assured of existing syndrome. At first, by using the international questionnaire of restless legs syndrome the extent to which patients suffered the syndrome was investigated and at the next level to reject distinctive diagnosis, nephrologists did the nervous and motor examination to make sure that there is no nervous disorder and that patients suffer restless legs syndrome. Then, the patients were divided into two groups one of which suffered restless legs syndrome and the other without the syndrome.

In terms of the validity and constancy of data collection instruments, the questionnaire of restless legs syndrome and the Beck depression questionnaire are standard questionnaires whose scientific validity has been assessed and they have also been used in several researches in Iran.^[7,8]

RESULTS

The results showed that 55.6% of the patients were men and 44.4% of them were women. 57.3% of the studied patients suffered from restless leg syndrome and 42.7% of them didn't suffer from. There was no any significant relations between the age averages, hemodialysis frequency per week and it's duration of this remedy in two groups. The average score of depression in the first group was 47.31 ± 11.60 and in the second one was also 43.15 ± 10.33 . T-independent test showed significant relation between these two figures [Table 1].

DISCUSSION

The results of this study showed that the majority of patients were males as it found in Tanaka et al study^[9] A total of 98 ones of patients in the present study, (57.3%) suffer from restless leg syndrome and 73 ones (42.7%) did not suffer from. Molahosseini *et al.*^[7] study result

show that 61.5% of patients receiving hemodialysis suffered from restless leg syndrome. This figure was 80% in Hamdan *et al.* project^[10] Both groups were depressed to some extent, but those ones who got upset by restless leg syndrome depressed more than the latter group. The difference between the average score of depression level was significant.^[11] In another studies used Beck depression were questionnaire, showed that 1.2 up to 1.3 of patients depression with different levels^[12,13] Mood disorder of these clients may also be related to use some medicines like anti hypertension, which can result in depression. Some other factors such as poor vocational condition, couple problems due to disease duration, lack of family support and financial matters can induce depression among patients receiving hemodialysis.

CONCLUSION

We, in all conclude that depression is so prevalent among these patients. Impairing the job quality, reducing physical activities, causing conjugal problems resulting from the prolongation of the disease, enduring lack of familial support and economic problems are among other factors, which can result in disorders in dialysis patients' depression. Nurses and other health staffs are supposed to intervene to relive these clients and help them get rid of mental problems among patients receiving hemodialysis and suffer from restless leg syndrome.

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REFERENCES

1. Shafipour V, Jafari H, Shafipour L. Relation of quality of life and stress intensity in hemodialysis patients. *Kowsar Med J* 2009;14:28.
2. Riahi Z, Esfarjani F, Mohammad Marandi S, Kalani N. The effect of intradialytic exercise training on the quality of life and fatigue in hemodialysis patients. *Journal of Rehabilitation Sciences* 2012;8:219-27.
3. Naji A, Naroie S, Abdeyazdan Gh, Dadkani E. Effect of Applying Self-Care Orem Model on Quality of Life in the Patient under Hemodialysis. *Zahedan Journal of Research in Medical Sciences* 2012;14:8-12.
4. Namady M. Quality of life in patients after renal transplantation in comparison with intermittent hemodialysis. *J Ardebil Univ Med Sci* 2009;9:171-9.
5. Kutner NG. Quality of life and daily hemodialysis. *Semin Dial* 2004;17:92-8.
6. Fukuhara S, Lopes AA, Bragg-Gresham JL, Kurokawa K, Mapes DL, Akizawa T, *et al.* Health-related quality of life among

Table 1: The comparison of average and standard deviation of studied variables in syndrome and without syndrome

Group variable	Syndrome		Without syndrome		Significant level of T-independent test
	X	SD	X	SD	
Age (year)	59.27	16.86	55.20	17.95	$P=0.131$
Hemodialysis duration	33.50	29.58	41.61	36.87	$P=0.112$
Hemodialysis frequency weekly	2.80	0.42	2.86	0.41	$P=0.383$
Depression	47.31	11.60	43.15	10.33	$P<0.05$

- dialysis patients on three continents: The Dialysis Outcomes and Practice Patterns Study. *Kidney Int* 2003;64:1903-10.
7. Molahosseini Sh, Mohammadzadeh Sh. Frequency of sleep disorder and restless legs syndrome in patients referring to hemodialysis units. *Tehran Univ Med Sci Journal of Islamic Azad University, Tehran Medical Branch* 2005;15:27-30.
 8. Sajjadi M, Akbari A, Kianmehr M, Atarod AR. The relationship between self-care and depression in patients undergoing hemodialysis. *Journal of Gonabad University of medical Sciences and Health Services* 2008;14:13-18.
 9. Kimmel PL, Peterson RA. Depression in end-stage renal disease patients treated with hemodialysis: Tools, correlates, outcomes, and needs. *J Renal Diseases* 2005;18:91-7.
 10. Hamdan H, Al Jahdali. Restless legs syndrome in patients on dialysis *J Kidney Dis Transpl* 2009;20:378-85.
 11. Kimmel PL, Peterson RA. Depression in end-stage renal disease patients treated with hemodialysis: Tools, correlates, outcomes, and needs. *J of Renal Diseases and* 2005;18:91-7.
 12. Finkelstein FO, Finkelstein SH. Depression in chronic dialysis patient: assessment and treatment. *Nephrol Dial Transplant* 2000;15:1911-3.

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