

#1970 - Comparison of sleep quality in patients before and after kidney transplantation

Authors and Affiliations

1-Boshra Hasanzamani, • Kidney Transplantation Complications Research Center, Department of Internal Medicine, Ghaem Hospital, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
2-Mahin Ghorban Sabagh ,Amir Rezaei Ardani, Associate professor of psychiatry, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
3-Maryam Miri ,Amir Rezaei Ardani, Associate professor of psychiatry, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad, Iran
4-Elham Poorranjbar, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
5-Amir Rezaei Ardani, Associate professor of psychiatry, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Corresponding Author and email

hasanzamanib@mums.ac.ir-Boshra Hasanzamani, • Kidney Transplantation Complications Research Center, Department of Internal Medicine, Ghaem Hospital, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Body

Objective: The purpose of this study is to identify the prevalence of sleep disturbance in patients with renal failure, to identify the factors affecting sleep disturbances, and to compare sleep quality in these patients before and after kidney transplantation. **Methods & Materials:** A cross-sectional study was performed on 40 patients with renal failure who referred to Montaserieh Hospital in Mashhad, Iran, whom were selected based on entry and exit criteria and gave an informed consent in order to participate in the study. Patients were asked to fill out the Pittsburgh sleep quality index (PSQI) questionnaire three times, before transplantation, 3 and 6 months after the transplant. This questionnaire consists of seven parts that examine the subjective quality of sleep, sleep duration, sleep disturbance, sleep latency, daytime dysfunction, sleep efficiency, and the use of hypnotic drugs. The checklist of information including age, sex, cause of renal failure, duration of dialysis and laboratory information was filled for all the patients, based on previous medical history and

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records. Afterwards sleep disturbances were studied and compared in our patients and the relationship between sleep disorders with age, sex, the cause of renal insufficiency and laboratory disorders such as anemia and phosphorus deficiency were studied.

Results: The mean age of the patients was 36.16 ± 11.14 with minimum age of 19 and maximum age of 65 years. 27 (67.5%) patients were male and 13 (32.5) of them were female. Overall, the mean score of the PSQI was 3.49 ± 5.18 , 4.12 ± 5.20 and 3.78 ± 3.30 , before the kidney transplantation, 3 months after transplantation and 6 months after transplantation, respectively. The average sleep score 6 months after transplantation is considered to be in the range of good sleeper. The prevalence of sleep disorder in the study population was approximately 38%. 62.5% of the patients were Good Sleepers and 37.5% were Poor Sleepers. The results of the statistical analysis showed no meaningful relationships between the type of dialysis and the prevalence of sleep disorders ($P = 0.109$) and sleep quality with serum hemoglobin ($P = 0.68$), serum phosphorus ($P = 0.267$), age ($P = 0.220$), and the cause of kidney failure ($p = 0.081$). However, the result of the statistical tests showed a significant difference between genders in sleep quality ($p = 0.045$). Sleep disturbances in males was 48.1% compared to 15.4% in women, indicating a higher prevalence of sleep disturbances in males.

Conclusion: The prevalence of sleep disorders in patients with renal failure was 37% in our study, and this disorder was more pronounced in men. In this study, the frequency of inappropriate sleep quality decreased from 37.5% before transplantation to 20% within 6 months after transplantation. And the mean sleep score varied from 3.49 ± 5.18 before transplantation to 3.78 ± 3.30 in 6 months after transplantation ($p = 0.01$). In general, kidney transplantation has had a positive effect on patients' sleep quality after 6 months.

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