

Evaluation of Anti-Pruritus Effect of Melatonin on Hemodialysis Patients with Uremic Pruritus: A Randomized Clinical Trial

Authors : Paria Baharvand, Mohammad Reza Abbasi, Soha Namazi

Abstract : Introduction: Uremic pruritus (UP) is one of the major complaints in hemodialysis patients. The aim of this randomized clinical trial study was the evaluation of the anti-pruritus effect of Melatonin on hemodialysis patients with UP. Methods: This multi-centered double, blinded randomized clinical trial study was conducted on hemodialysis patients with UP that referred to the dialysis department of Imam Khomeini Hospital, Labbafinezhad Hospital and Ghiasi Hospital in Tehran, Iran, in 2018. Forty participants were enrolled and block randomization was performed by using a randomized list and divided into 2 groups of twenty patients. Evaluation of the 12-Item Pruritus Severity Scale (12-PSS), Visual analog scale (VAS), and Calculation of the affected body surface area for pruritus extent (BSA %) was performed every week. The Melatonin group received a 10 mg soft gel capsule, and the placebo group received a soft gel capsule placebo after dinner. For statistical analysis used by SPSS version 21(IRCT20180714040462N1). Results: 38 hemodialysis patients enrolled in this study. The mean age in the placebo group and in the Melatonin group was 55.88 ± 11.70 and 54.52 ± 13.00 years ($p > 0.05$). Also, 46% of all participants were female. Aspartate transaminase, alanine transaminase and C-reactive protein have significant differences between the two groups ($p < 0.05$). VAS score reduction in the two groups had a statistically significant (CI 95% = -1.71, P= 0.015). The results of BSA% showed Melatonin had a significant effect on the decrease of the pruritus extent compared to placebo (CI 95% = -22.82, P= 0.001). Conclusion: According to the results of this study and the preliminary effects of Melatonin on uremic pruritus, we suggest performing advanced clinical trials studies.

Keywords : Melatonin, Uremic Pruritus, hemodialysis, anti-pruritus

Conference Title : ICPDSE 2024 : International Conference on Pharmacovigilance, Drug Safety and Efficacy

Conference Location : Montreal, Canada

Conference Dates : August 05-06, 2024