



Uremic pruritus: a serious global health concern for patients undergoing hemodialysis

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To the Editor,

End-stage renal disease (ESRD) is a global concern that affects people worldwide. Despite numerous efforts to improve the survival rates of kidney patients undergoing hemodialysis, concerns about a potential decline in their quality of life persist. This refers to the patient's well-being, functioning, and overall health perception in the psychological, physical, and social domains (Aghakhani et al., 2011).

Uremic pruritus is a common problem among patients undergoing hemodialysis maintenance, characterized by a bilateral recurring itch in many individuals. The exact mechanism of this condition is not fully understood, but possible hypotheses include changes in skin barrier function, immune system dysregulation, toxin accumulation, and peripheral neuropathy. This problem significantly impacts various aspects of quality of life, leading to depression, poor sleep quality, impaired social functioning, and increased mortality rates (Osakwe and Hashmi 2024).

Some metabolic alterations associated with the exacerbation of pruritus include transdermal mast cell proliferation, hypercalcemia, hyperparathyroidism, xerosis, reduced elimination of pruritogenic factors, uremic neuropathy, hypophosphatemia, and elevated histamine.

Other factors that may contribute to the illness include uremic neuropathy, inflammation of the nerves and skin, elevated ferritin levels, disrupted calcium homeostasis, chronic inflammation, and dehydration. Due to limited personal freedom and autonomy, uremic pruritus damages the quality of life, which may lead to impaired marital, family, and social relationships (Aghakhani et al., 2012; Asghar et al., 2021).

The treatment of pruritus in patients undergoing hemodialysis is challenging due to a limited understanding of the underlying pathophysiological causes and a lack of recognized therapies. Along with medications, factors such as metabolic balance, dialysis adequacy, and comprehensive management plans, including skin rehydration, dialysis modality, and nutrition, should be taken into account. High-flux hemodialysis, acupuncture, acupressure, hemoperfusion hemodialysis, and hemodiafiltration with high permeability can help alleviate the issues. Other options include reducing PTH levels, optimizing calcium and phosphorus levels, and utilizing ultraviolet phototherapy (Zhang et al., 2021).

Conclusion

Hemodialysis patients often experience persistent symptoms that remarkably affect their quality of life.

Keywords: Uremic pruritus, hemodialysis, patients

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Despite its common occurrence, healthcare professionals often overlook this issue. Therefore, it is essential to obtain a detailed history to effectively identify and address these concerns. Uremic pruritus, in particular, should be managed using a combination of new pharmacologic and non-pharmacologic approaches to enhance patient care and improve their overall quality of life. However, given the complexity of the condition, healthcare professionals should consider individualized, multifaceted approaches for each patient.

Conflict of Interest Disclosures

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