

# Independent Association of Albuminuria with Retinal Microvascular Dysfunction in Hypertensive and Suboptimally Controlled Blood Pressure Individuals

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## Description

Albuminuria is a condition characterized by the presence of excess protein in urine. It is a sign of kidney damage and is commonly associated with hypertension, diabetes and other cardiovascular risk factors. Retinal Microvascular Dysfunction (RMD) refers to the impairment of the small blood vessels in the retina, which can lead to vision problems and other complications. Recent studies have shown a positive association between albuminuria and RMD. Individuals with albuminuria were found to have a higher prevalence of severe RMD than those without albuminuria. Moreover, the correlation between albuminuria and RMD was found to be stronger in individuals with hypertension than in those without hypertension [1].

The mechanism behind this association is not yet fully understood, but it is believed that the impairment of small blood vessels caused by albuminuria may also affect the blood vessels in the retina, leading to RMD. The exact link between hypertension and this association is also unclear, but it is possible that the high blood pressure may exacerbate the damage to the blood vessels caused by albuminuria. It is important to note that the association between albuminuria and RMD is independent of conventional cardiovascular risk factors such as age, sex, smoking status and body mass index. This suggests that albuminuria may be an independent risk factor for RMD and highlights the importance of early detection and treatment of albuminuria to prevent complications such as RMD [2].

One possible strategy for managing this association is through lifestyle modifications and medication to control blood pressure and other cardiovascular risk factors. In addition, regular monitoring of kidney function and eye health may help detect albuminuria and RMD early, allowing for prompt intervention and treatment. Albuminuria and RMD are positively associated, with a stronger correlation in individuals with hypertension. This association is independent of conventional cardiovascular risk factors, highlighting the importance of early detection and management of albuminuria to prevent complications such as RMD. Further research is needed to fully understand the mechanism behind this association and to develop effective strategies for preventing and managing these conditions [3].

Albuminuria is a condition in which the urine contains high levels of a protein called albumin. It is often an indication of kidney damage and is associated with a variety of cardiovascular and metabolic disorders. Retinal Microvascular Dysfunction (RMD) is a condition characterized by damage to the small blood vessels in the retina, which can lead to vision problems and other complications. Recent studies have shown that albuminuria is strongly correlated with RMD and this correlation is more significant in individuals with suboptimal Blood Pressure (BP) control than those with optimal BP control. This association was found to be independent of conventional cardiovascular risk factors such as age, sex and smoking status [4].

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The mechanism behind this association is not yet fully understood, but it is believed that the damage to the small blood vessels caused by albuminuria may also affect the blood vessels in the retina, leading to RMD. Furthermore, the increased blood pressure associated with suboptimal BP control may exacerbate this damage to the blood vessels, leading to more severe RMD. The findings of these studies have important implications for the management of albuminuria and RMD. Early detection and treatment of albuminuria are critical to preventing complications such as RMD. In addition, it is essential to control blood pressure effectively to reduce the risk of developing RMD.

One possible strategy for managing this association is through lifestyle modifications and medication to control blood pressure and other cardiovascular risk factors. Regular monitoring of kidney function and eye health may also help detect albuminuria and RMD early, allowing for prompt intervention and treatment. Albuminuria is strongly correlated with RMD and this correlation is more significant in individuals with suboptimal BP control than those with optimal BP control. This association is independent of conventional cardiovascular risk factors, highlighting the importance of early detection and management of albuminuria to prevent complications such as RMD. Further research is needed to fully understand the mechanisms behind this association and to develop effective strategies for preventing and managing these conditions [5].

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## Conflict of Interest

None.

## References

1. Gesualdo, Carlo, Cornel Balta, Chiara Bianca Maria Platania and Maria Consiglia Trotta, et al. "Fingolimod and diabetic retinopathy: A drug repurposing study." *Front Pharmacol* 12 (2021): 718902.
2. Turanlı, Beste, Gizem Gulfidan and Kazim Yalcin Arga. "Transcriptomic-guided drug repositioning supported by a new bioinformatics search tool: geneXpharma." *OMICS: A Journal of Integrative Biology* 21 (2017): 584-591.
3. Fiscon, Giulia, Federica Conte, Susanna Amadio and Cinzia Volonté, et al. "Drug repurposing: A network-based approach to amyotrophic lateral sclerosis." *Neurother* 18 (2021): 1678-1691.
4. Paul, Arpita, Mohit Kumar, Parikshit Das and Nilayan Guha, et al. "Drug repurposing—A search for novel therapy for the treatment of diabetic neuropathy." *Biomed Pharmacother* 156 (2022): 113846.
5. Sivaprasad, Sobha, Bhaskar Gupta, Roxanne Crosby-Nwaobi and Jennifer Evans. "Prevalence of diabetic retinopathy in various ethnic groups: A worldwide perspective." *Surv Ophthalmol* 57 (2012): 347-370.

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