

Review on The Potential of Herbal Medicine in the Treatment of Diabetic Kidney Disease

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Abstract: *Diabetic Kidney Disease (DKD), a leading complication of diabetes mellitus, presents a significant global health challenge due to its progression to end-stage renal disease (ESRD). Conventional therapies for DKD focus on glycemic control, blood pressure regulation, and renin-angiotensin system inhibition but often fall short in halting disease progression. This review explores the potential of herbal medicine as a complementary approach to managing DKD.*

Herbal medicines, rich in bioactive phytochemicals, exhibit antioxidant, anti-inflammatory, and renoprotective properties that may mitigate key mechanisms driving DKD progression. Notable compounds include quercetin, curcumin, berberine, and ursolic acid, which target oxidative stress, inflammation, and fibrosis. Furthermore, herbs like Curcuma longa, Zingiber officinale, and Panax ginseng have shown promising results in preclinical and clinical studies, improving renal function and reducing proteinuria.

Despite their potential, challenges remain in standardizing herbal formulations, understanding herb-drug interactions, and ensuring safety in patients with compromised renal function. Future research should prioritize large-scale clinical trials, mechanistic studies, and integrative treatment models combining herbal and conventional therapies. By leveraging the strengths of traditional and modern medicine, herbal interventions offer a promising pathway to improve outcomes for individuals with DKD.

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