

## **Assessment of Dietary and Lifestyle Risk Factors Associated with Urolithiasis: A Cased-Based Cross-Sectional Study in Matara District, Sri Lanka**

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Urolithiasis, commonly known as urinary stone disease, is a multifactorial disorder influenced by a range of determinants including physiological, dietary, environmental, and genetic factors. The prevalence of urolithiasis is rising in tropical countries like Sri Lanka. This study aimed to investigate the dietary and lifestyle risk factors contributing to the formation and recurrence of urinary stones among patients attending the District General Hospital Matara in the Southern Province of Sri Lanka. A pre-validated structured questionnaire, which was designed based on previous research and expert input, was used to collect data on demographic and clinical characteristics, hydration status, urinary symptoms, dietary habits (including salt, protein, oxalate, and caffeine consumption), lifestyle, comorbidities, and family history of urolithiasis. After obtaining ethical clearance, the questionnaire was pilot-tested for readability, reliability, and relevance prior to deployment. Among 100 diagnosed urolithiasis patients, the majority were male (72%) and aged between 35 and 60 years. Key risk factors identified included low daily water intake ( $\leq 1.5$  L) in 90% of patients, a high-salt diet (61%), and regular intake of oxalate-containing foods (74%). Additionally, many patients reported symptoms of dehydration and comorbid conditions such as hypertension and diabetes. Statistical analysis using chi-square tests revealed significant associations between dietary behaviors and stone formation, with 49% of patients experiencing recurrent stones. These findings emphasize the significant role of modifiable dietary and hydration factors in urolithiasis development and recurrence. The use of structured, validated assessment tools offers valuable insight into the risk profiles of urolithiasis patients, and provides a foundation for the development of evidence-based interventions to prevent and manage stone recurrence, particularly in endemic regions.

**Keywords:** Urolithiasis, urinary stones, dietary risk factors, hydration, recurrence