

Understanding of dietary modification for kidney stone prophylaxis in an Afro-Caribbean Population

Introduction: Urinary stones are a common and burdensome illness. A mainstay of prevention is dietary modification, making patient counseling and education paramount. We sought to assess patient understanding of urinary stone preventative measures in a predominantly Afro-Caribbean Population.

Methods: Adult patients in our urology clinic were invited to participate in a survey regarding urinary stone disease. Survey questions included demographics, past medical history, and knowledge about kidney stones and preventative measures. A logistic binary regression and univariate analysis were performed to assess results.

Results: In total, 153 patients were included for analysis. Overall, 24.2% reported prior history of stones and 71.9% identified as Caribbean. Caribbean patients were more likely to correctly identify the role of salt reduction in kidney stone prophylaxis (89.1% vs 72.1%, $p=0.009$). Caribbean patients were less likely to identify calcium-containing foods. Stone formers were more likely to correctly identify dietary recommendations for fish and calcium intake compared to non-stone formers ($p=0.002$ and $p=0.032$).

Conclusions: Results show most misconceptions were not significantly associated with Caribbean descent. More Caribbean patients identified sodium reduction as a protective factor against stone formation, with being Caribbean as a significant predictor. We found a knowledge gap regarding identification of which foods contained calcium, possibly calling into question whether such knowledge is correctly applied. Patients with a history of urinary stones were able to correctly identify recommendations regarding calcium and fish intake at significantly higher rates, which may indicate successful counseling. Our findings indicate pervasive misconceptions regarding stone prevention and the importance of routine patient counseling. Culturally tailored dietary modification strategies for kidney stone prophylaxis may improve successful patient compliance.

Additional contributors to this project:

Hyezo Kwun

Neil Patel

Johnathan Khusid

John Barlog