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COMMENTARY

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Optimizing kidney stone care with multidisciplinary collaboration and improved guideline adherence

Dr. Chen and colleagues have assessed trends in kidney stone disease (KSD) prevalence in the adult American population in their analysis of data from NHANES database information.[1] Prior to reading the article, I expected that KSD incidence would have risen across the American population over the study time period. That, however, was not the case, as there was no statistically significant difference in KSD prevalence as captured by the NHANES data between 2007 and 2017–2020 (8.9% vs. 9.9%, p=0.23), despite increases occurring in prior decades. The authors did identify that KSD prevalence increased significantly in females (6.5% vs. 9.1%, p=0.01) compared to males (11.5% vs. 10.8%, p=0.59) over the study timeframe.

As noted in the study, KSD is a significant driver of economic burden, including healthcare utilization and lost economic productivity. At an estimated cost of $2 billion USD per year in 2000,[2] the cost of managing KSD is not insubstantial. Stones are not cancer, but the negative effects KSD has on the healthcare system and our society as a whole, including reductions in health-reported quality of life (HRQoL) metrics,[3] should not be discounted.

The study authors outline some possible reasons for the increase in KSD prevalence in female patients, including metabolic issues that have been rising within the female population in recent decades. Specifically, they highlight the risks of obesity, diabetes, metabolic syndrome, and resultant inflammation that may be driving increases in KSD in the female population, as seen in this study. Other potential explanations, including societal changes that might create changes in kidney stone diagnosis, such as higher participation in the work force and potential of higher health insurance coverage for this patient population (a unique consideration for American populations than those in Canada), are discussed in the study. These are all interesting points beyond the scope of the study, but they serve to highlight the multifactorial underlying causes of increases in KSD.

Educating our patients regarding the potential that having a kidney stone may be harbinger of other medical comorbidities or be a corollary for suboptimal management of known comorbid conditions could yield benefits to patients, the healthcare system, and society as a whole. Patient education can, however, be a challenge in fast-paced clinical environments, as many of us do not have the supports to provide proper patient education, or we try to provide that education with variable success, as we are not experts in nutrition and management of metabolic comorbidities.

Collaborative care is often discussed regarding improving primary care in Canada; however, KSD is a good example of how collaborative care can enhance urologic and overall patient care and should be encouraged and funded by healthcare administrators. I have been fortunate to (finally) be working with a dedicated dietitian to assess and counsel patients with recurrent kidney stones in a collaborative care model. It has been amazing to not be flipping through oxalate handouts, falling further and further behind in clinic while I attempt to give dietary counseling. I have had nothing but positive feedback from patients with the new model. This collaboration has freed up my time to see other patients. Collaborative care is helping to get to the goal of "the right care, by the right provider, at the right time" — the oft-quoted goal of healthcare system modernization in Nova Scotia in recent years — and a laudable goal as our system buckles under pressures of increasing patient volumes and inefficient models of care delivery.

Adherence to guidelines for investigations and management of recurrent urolithiasis by urologists is poor, as outlined in a 2018 study by this study's lead author, Dr. Bhojani.[3] In the 2018 study, only 41% of patients for whom metabolic workup was

indicated were offered those investigations. If these were oncology guidelines with a 41% adherence rate, alarm bells would be ringing. I am not aware of studies investigating why guidelines are not being followed — perhaps this could be another Canadian Endourology Group research project. I expect that adherence to KSD guidelines would be improved if all urologists had the opportunity to work with dietitians in a collaborative model or had colleagues they could refer to who would take on care of these patients.

I am hopeful that Canadian healthcare will see more opportunities to embrace collaborative care within urology and promote innovations in clinical care. We would likely see improved patient outcomes, improved wait times, and improved adherence to evidence-based care. It would be great to see expanded collaborative care that promotes improved chronic disease management for the underlying factors that may be promoting the urologic condition in the first place. It makes sense, right?

COMPETING INTERESTS: The author does not report any competing personal or financial interests related to this work.

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