Feedback Regarding the Article Titled: Oxalate Nephropathy Due to High Oxalate Vegan Diet in the Renal Nutrition Forum 2017;36(3)1-7

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This article brings up some very important points to keep in mind with our renal disease and high risk kidney stone forming patients. However, my concern is that this case study tends to lead one to believe a vegan diet can cause hyperoxaluria or urolithiasis in kidney disease. A diet high in bioavailable sources of oxalate (i.e. peanuts, almonds, spinach, Swiss chard) can occur in omnivores as much as vegans. Many factors in kidney stone formation are just as common if not more common in omnivore diets as compared to vegans. This includes high animal protein intake, phosphates from processed foods and beverages, excess sodium, excess sugar consumption and a low fiber diet. In fact, studies suggest a lower incidence of kidney stones in patients on a vegetarian diet. In one observational study the prevalence of kidney stones was 50% lower in a group of 1825 vegetarians than 2592 omnivores (1). Just like a vegan diet can contain high bioavailable sources of oxalates, a vegan diet can also contain foods that inhibit oxalate formation such as fiber, citrate from lemons, absence of animal protein, less protein (2-3), and some kinds of soy which may actually be protective to kidney stone formation (4). Lastly it is the big picture we want to keep in mind when working with our kidney disease patients. Promoting a plant based diet can be protective overall in the progression of CKD. Although I am not clear by this case study of portion sizes, what beverages the patient was consuming, fiber content of the diet and vitamin C content of the diet (which also can be a factor in stone formation), I would be curious to see what diet changes were implemented by the author in the post diet plan. I would hope that our readers of this case study would gleam the importance of monitoring our patient’s diet for excesses of any kind and be able to help them plan a diet with variety but also support their decision to vegan, vegetarian, plant based eating for decreasing kidney disease progression, in addition to limiting the risk of hyperoxaluria.


Editor’s Reply
Thank-you for your feedback, Joan, you are correct; kidney stones can result from typical Western diets (high in salt, refined carbohydrates, animal protein, low in fiber and lacking fruits and vegetables). There are various types of kidney stones (such as calcium oxalate, calcium phosphate, uric acid, struvite, and cysteine)(1). A vegan diet does not cause kidney stones in most people but there may be other factors in their medical history which makes them prone to nephrolithiasis. Hyperoxaluria can be a consequence of diets that are high in oxalates or low in calcium, magnesium, fiber, and fruits/vegetables. It is important to assess the type of stone and the precipitating causes for the kidney stone. Use of 24 hour urine analyzed at minimum for total volume, pH, calcium, oxalate, uric acid, citrate, sodium, potassium and creatinine helps to target medical nutrition therapy (MNT) (2). Customized MNT to the identified nutrition risk factors for the kidney stone can help reduce their reoccurrence. Thank-you for sharing your thoughts.

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