

it is important in some cases to increase the salines in the food. This may be done by—

(a) Taking more salt, NaCl, with the food.

(b) Increasing the meat in the diet, since meat contains the inorganic salts. For example, the frequency of stone in the children of the poor is thus accounted for, their diet consisting of bread, potatoes, oatmeal, and very little meat. So, in India, where rice is a staple food, stone is common. Again, stone is uncommon in sailors, since they consume plenty of salt.

II. OXALATES.

About one and a half grains are excreted in twenty-four hours. The oxalates are derived from: (a) The food; (b) gastric fermentation; (c) pancreatic disease. Most oxalates of the food are in the form of the insoluble calcium oxalate, e.g., in potatoes, beets, spinach, tea and coffee. The calcium oxalate is not absorbed as such, but probably is decomposed by the HCL of the gastric juice, so that two opposite conditions may arise, viz.:

(1) When there is hyperchlorhydria, i.e., excess of HCL. Then more of the oxalate will be dissolved, and therefore more will be absorbed.

(2) When achlorhydria or hypochlorhydria exists, then, with the HCL diminished, if the diet consist of much carbohydrate there may be abundant fermentation of the fermentable carbohydrate in the stomach or duodenum forming oxalic acid, which comes to the same thing as taking them in the food.

(3) When too much fat in the diet, fatty acids may be in excess and these, combining with oxalates, form soaps which may be thus absorbed.

However, when calcium oxalate crystals appear in a highly acid and highly colored urine long after the urine has been voided, it is said to result from decomposition of urea and is of no clinical importance.

Endogenous production of the oxalates is very small. Generally oxaluria is thought to be an indication of a low state of health.

Patients with oxaluria often suffer from all the symptoms of unilateral renal calculi to the extent even of hematuria, but postural treatment and X-ray are negative. Vesical irritation and frequent micturition may be prominent symptoms. In women the gynecologist has therefore to be on guard not to put down back-aches and vesical irritations to uterine displacements or pelvic inflammation without first making a careful examination of the urine.