Am J Dig Dis. 1977 Oct;22(10):921-8. Related Articles, Links

Hyperoxaluria and intestinal disease. The role of steatorrhea and dietary calcium in regulating intestinal oxalate absorption.

Stauffer JQ.

Hyperoxaluria was documented in patients with pancreatic insufficiency, adult celiac disease, regional enteritis after ileectomy and partial colectomy, and jejunoileal bypass. The degree of hyperoxaluria correlated directly with the severity of the steatorrhea and inversely with the dietary calcium content. High-calcium diets suppressed oxalate excretion to normal when fecal fat excretion was approximately 30 g/day or less. In patients with more severe steatorrhea, decreasing dietary fat and oxalate content further reduced urinary oxalate excretion. These data suggest that, while steatorrhea is the most important determinant for enhanced absorption of dietary oxalate, variations in dietary calcium content modulate the amount of oxalate absorbed.

PMID: 920694 [PubMed - indexed for MEDLINE]

Lancet. 1977 Oct 1;2(8040):677-9. Related Articles, Links

Urinary oxalate on a high-oxalate diet as a clinical test of malabsorption.

Andersson H, Gillberg R.

100 g of spinach a day was added to the hospital diet of fifty-four patients with suspected malabsorption. Hyperoxaluria was found in thirty-eight patients; all of them had steatorrhoea. No patient with steatorrhoea had a urinary oxalate excretion of less than 40 mg a day. Ten other patients had hyperoxaluria, but the faecal fat determinations were regarded as unreliable in almost all and malabsorption could not be confirmed. It is suggested that in clinical practice determination of urinary oxalate after an oral load of oxalate could replace faecal fat determination in most patients with suspected malabsorption.

PMID: 71494 [PubMed - indexed for MEDLINE]

From Nephrol Dial Transplant (2002) 17: 1348-1350:

EH is a well-established metabolic complication of various gastrointestinal diseases including Crohn's disease, ileal resection, jejuno-ileal bypass

and chronic pancreatitis. Within the intestinal lumen, free calcium normally combines with oxalate and limits its absorption by colic and rectal mucosae. EH occurs when non-absorbed fatty acids combine to intestinal calcium forming insoluble soap. The ensuing decline in intraluminal calcium favours enhanced oxalate absorption along the colon.