Recrunt vomiting in a 12-year old boy with diagnostic suspicion of hyperoxaluria. A case report.

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Introduction

Hyperoxaluria may result in deposition as calcium oxalate in the kidney and may lead to end-stage renal disease. Primary hyperoxaluria are rare inborn errors of glyoxylate metabolism, but might result in a heterogeneous disease with variable expression in patients. Secondary hyperoxaluria might in absence of genetic mutation also result in renal failure. Medical management is focused on minimalizing renal oxalate deposition by large fluid intake and pyridoxine therapy.

Case Report

CASE 1:
A 12-year old boy presented with increased serum creatinine level (1.7 mg/dl), hyperphosphatemia (10.2 mg/dl) and PTH (168 ng/L) following an episode of 3 days vomiting. Renal ultrasonography and biopsy were suggestive for oxalosis (oxalate crystals), wherefore management with high liquid intake and pyridoxine inhibitors. Genetic analyses found no AGXT-gene mutation (associated with type I PH). Six months later he was referred to Paediatric Gastro-Enterology because of recurrent vomiting and failure to thrive (Fig.2).

Anamnesis revealed clear fluid vomiting and abdominal pain since the age of 2. Since this was historically considered psychogenic vomiting, it was not mentioned earlier. An upper gastrointestinal series revealed an incomplete bowel obstruction located at the angle of Treitz. Jejunoscopy showed a duodenal web, causing subtotal torsion (Fig.3). Laparoscopy confirmed chronic volvulus wherefore “Ladd procedure” was performed.

The following months an improvement of renal disease control was seen.

Discussion

Presentation of intestinal malrotation in older children can be insidious, although it should be excluded if recurrent abdominal pain occurs (Fig.1). Intermittent vomiting, malabsorption, or failure to thrive are other potential symptoms. Hyperoxaluria is documented in multiple intestinal disorders (but not malrotation), resulting in nephrolithiasis rather than acute renal failure. In this boy without pre-existing kidney disease, recurrent vomiting and dehydration resulted in crystallisation of oxalate, causing acute and (chronic) renal impairment.

Conclusion:

1) Intestinal malrotation is not only a disease of infancy
2) Dehydration (vomiting) might result in renal oxalosis
3) Renal damage is only partially reversible