



# Index of Suspicion

## 5 Abdominal Pain, Nausea, and Vomiting in a 14-year-old Boy

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**AUTHOR DISCLOSURE** Drs MR Vindhya, Kuhlmann, S Vindhya, Kao, Bijjula, and Kallail have disclosed no financial relationships relevant to this article. This commentary does not contain a discussion of an unapproved/investigative use of a commercial product/device.

### PRESENTATION

A 14-year-old boy presents with nausea, vomiting (3–4 times per day), and abdominal pain lasting 7 days. The abdominal pain is sharp and rated 6 of 10 without radiation. The patient and his mother deny fever and weight loss. He had a bowel movement 4 days before presentation and has had decreased urination for the past 3 days. His medical history includes kidney disease, and his surgical history is unremarkable. He plays basketball at school and has no history of recent travel or excessive exercise. His Patient Health Questionnaire-9 score reveals no evidence of depression, and his psychiatric history rules out an eating disorder.

His temperature is 96.1°F (35.6°C), heart rate is 92 beats/min, respiratory rate is 20 breaths/min, blood pressure is 134/90 mm Hg, and oxygen saturation is 98% on room air. His weight is 117.7 lb (53.4 kg), height is 70.0 in (177.8 cm), and BMI is 16.8, which is at the 9th percentile, with no significant change from his previous visits to his primary care physician. On physical examination, he is alert and oriented with no distress but reports some abdominal discomfort. His mucous membranes are dry, with delayed capillary refill and poor skin turgor. His abdomen is distended, with diffuse tenderness in all quadrants without rebound tenderness. No masses are palpable, but he has decreased bowel sounds.

Laboratory results were as follows: sodium, 128 mEq/L (128 mmol/L); potassium, 3.6 mEq/L (3.6 mmol/L); chloride, 86 mEq/L (86 mmol/L); carbon dioxide, 23 mEq/L (23 mmol/L); anion gap, 20 mEq/L (20 mmol/L); glucose, 140 mg/dL (7.8 mmol/L); phosphorous, 3.8 mg/dL (1.23 mmol/L); magnesium, 2.0 mg/dL (0.822 mmol/L); creatinine, 3.8 mg/dL (336 μmol/L); blood urea nitrogen, 45 mg/dL (16.1 mmol/L); aspartate aminotransferase, 222 U/L (3.71 μkat/L); alanine aminotransferase, 78 U/L (1.30 μkat/L); and total bilirubin, 1.2 mg/dL (20.5 μmol/L). Erythrocyte sedimentation rate and urine study results are normal. Postrenal etiologies for acute elevation in blood urea nitrogen and creatinine levels are ruled out by doing a bladder scan, which was negative for urine. An abdominal radiograph shows an abnormal bowel gas pattern, with high air fluid levels in the left upper quadrant. We decide to get a computed tomographic (CT) scan of the abdomen instead of an upper gastrointestinal series because we are concerned about an abdominal mass and to help establish the diagnosis.

*The Case Discussion and Suggested Readings appear with the online version of this article at <http://pedsinreview.aappublications.org/content/38/3/143>.*

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