 Unexpected Urine Crystals and Hematuria
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CASE DESCRIPTION
An otherwise healthy 6-year-old boy presented to the emergency department after falling out of bed and sustaining a testicular injury. The examination and evaluation, including urinalysis (revealing hematuria) and ultrasound, were suggestive of minor injury but were otherwise unremarkable. The patient was started on amoxicillin and had orders for a repeat urinalysis in a week. The microscopy review of the urine sample a week later demonstrated numerous crystals and moderate hematuria (Fig.1).

QUESTIONS
1. What kind of fairly common urine crystals do these appear to be?
2. Does the patient’s history suggest another explanation for the crystals?

*The answers are on next page.*
The crystals appeared similar to tyrosine crystals, which are sometimes observed in the urine of patients with liver disorders and tyrosinemas (1). In the absence of other clinical signs or symptoms, however, the presence of tyrosine crystals would be surprising. Drugs and imaging dyes can also cause similar looking crystalluria and should be considered in cases of unexpected urinary crystals. Although rare, amoxicillin crystals have been demonstrated, with some cases exhibiting hematuria and even renal failure (2).

Author Contributions: All authors confirmed they have contributed to the intellectual content of this paper and have met the following 3 requirements: (a) significant contributions to the conception and design, acquisition of data, or analysis and interpretation of data; (b) drafting or revising the article for intellectual content; and (c) final approval of the published article.

Authors’ Disclosures or Potential Conflicts of Interest: No authors declared any potential conflicts of interest.

References