CLINICAL QUIZ



A child with green urine after a diagnostic enema: Questions

Luisa Cortellazzo Wiel 1 D · Giulia Gortani 2 · Davide Zanon 2 · Matteo Bramuzzo 2 · Marco Pennesi 2 · Egidio Barbi 1,2

Received: 20 February 2021 / Accepted: 25 February 2021 / Published online: 17 March 2021 © The Author(s) 2021

Keywords Child · Green urine · Recurrent cystitis · Autoimmune gastritis · Cystoscopy · Colonoscopy

Case report

A 12-year-old boy was evaluated for recurrent cystitis due to *Enterococcus faecalis*. The boy had a history of autoimmune gastritis, constipation with encopresis, and primary enuresis. An ultrasound scan ruled out the presence of a urinary tract malformation, showing a mild wall thickening of both the bladder and the rectum. The magnetic resonance imaging study evoked the suspicion of a possible recto-urethral fistula. To confirm this hypothesis, combined cystoscopy and colonoscopy were scheduled, under general anesthesia with sevoflurane, fentanyl, and propofol. Cystoscopy was performed while irrigating the rectum with methylene blue, to assist the detection of any fistulous tract. Despite the

instillation of a large amount of dye, the test proved negative. A colonoscopy was eventually performed after washing the rectum, showing no evidence of inflammation. The night following the procedure, the boy referred to voiding bluish urine. During the following day, a greenish hue of the urine was noted (Fig. 1), which gradually faded within a few days. Urinalysis was otherwise unremarkable.

Questions

- 1. What is the differential diagnosis for a child with green urine?
- 2. What diagnostic tests are useful to establish the diagnosis?
- 3. How would you manage this patient?

The answers to these questions can be found at https://doi.org/10.1007/s00467-021-05035-6.

☐ Luisa Cortellazzo Wiel luisacortellazzowiel@gmail.com

- University of Trieste, Trieste, Italy
- Institute for Maternal and Child Health IRCCS "Burlo Garofolo", Trieste, Italy



Fig. 1 Green urine of the patient



Author contribution All authors contributed to the study conception and design. The first draft of the manuscript was written by Luisa Cortellazzo Wiel, and all authors commented on the previous versions of the manuscript. All authors read and approved the final manuscript.

Funding Open access funding provided by Università degli Studi di Trieste within the CRUI-CARE Agreement.

Data availability Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study. **Code availability** Not applicable.

Declarations

Ethics approval Not applicable.

Consent to participate Not applicable

Consent for publication Not applicable.

>

Competing interests The authors declare no competing interests.

Additional declarations for articles in life science journals that report the results of studies involving humans and/or animals Not applicable.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

