

IMAGES IN HOSPITAL MEDICINE**Green Urine from Propofol**Cole T. Bredehoeft¹, Rebecca T. Rist², Christian A. Rojas-Moreno^{2,3}¹School of Medicine, University of Missouri, One Hospital Drive, Columbia, MO 65212²Department of Medicine, University of Missouri, One Hospital Drive, Columbia, MO 65212³Division of Infectious Diseases, Department of Medicine, University of Missouri, One Hospital Drive, Columbia, MO 65212Corresponding author: Cole T. Bredehoeft, BS. University of Missouri School of Medicine, One Hospital Drive, CE315, Columbia, MO 65212. (ctbqnf@health.missouri.edu)

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Am J Hosp Med 2018 Oct;2(4):2018.024 <https://doi.org/10.24150/ajhm/2018.024>**CASE PRESENTATION**

A 65-year-old female, with past medical history of hypertension and chronic hypoxemic respiratory failure due to chronic obstructive pulmonary disease (COPD), was admitted after endoscopic resection of colonic polyps and a large rectal mass. For this procedure, general anesthesia with intravenous Propofol was utilized. Due to technical difficulty of the procedure, the total anesthesia time was 7 hours and 48 minutes with a total use of 2,951.06 mg of Propofol.

**Figure 1.** Urine on post-procedure day 1.

On post-procedure day #1, the patient's urine was noted to be green (Figure 1). The patient denied dysuria, frequency, urgency, and foul smell. Additionally, liver function tests, renal function tests, complete blood count, and urinalysis were all within normal limits.

On post-procedure day #2, the patient continued to deny urinary symptoms and the green discoloration had resolved (Figure 2). She was discharged on post-procedure day #2 with presumed transient urine discoloration secondary to Propofol.

**Figure 2.** Urine on post-procedure day 2.

DISCUSSION

Propofol is commonly used during procedures due to its rapid onset of action and propensity to maintain loss of consciousness. Additionally, Propofol has a favorable recovery profile.¹ Although uncommon, Propofol is known to cause transient green discoloration of urine.²⁻⁴ Propofol is metabolized in the liver, intestines, and kidneys to phenol metabolites, which cause discoloration when hepatic elimination is overwhelmed.³ However, in the cases reported so far in our literature review, the infusion rates, total dose, infusion duration, and patient characteristics varied widely.⁵ The presentation of green urine can raise concerns to a clinician for urinary tract infections caused by *Pseudomonas* and obstructive jaundice. Other differential diagnoses for green discoloration of urine are as below.²⁻⁴

- Medications: Promethazine, cimetidine, propofol, metoclopramide, amitriptyline, and indomethacin.
- Dyes: Methylene blue
- Medical illness: Hartnup disease, obstructive jaundice
- Infections: *Pseudomonas aeruginosa*
- Consumer products: Listerine mouthwash, food coloring

Due to the wide use of Propofol for anesthesia and sedation, it is important for clinicians to be aware of this rare and benign manifestation in order to avoid unnecessary further evaluation.

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