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## IMAGE OF THE MONTH

## Diffuse Hemorrhagic Enterocolitis in the Setting of 2019 Coronavirus



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A<sup>47</sup>-year-old woman with diabetes diagnosed with COVID-19 was transferred to our institution for extracorporeal membrane oxygenation therapy. Gastroenterology was consulted because of worsening diarrhea, which started before transfer, and new hematochezia after extracorporeal membrane oxygenation was discontinued. Contrast-enhanced computed tomography demonstrated diffuse small and large bowel wall thickening and edema (Figure *A, arrows*), resulting in ribbon-like bowel. Upper endoscopy and colonoscopy were pursued. Atrophic and friable gastric and duodenal mucosa was found. Diffuse congested, friable, and hemorrhagic mucosa (Figure *B*) was seen throughout the colon and terminal ileum. Biopsies from the ileum and colon (Figure *C*) showed complete loss of glandular epithelium without associated increase in lamina propria inflammation despite the degree of epithelial damage. Supportive management was pursued.

Extracorporeal membrane oxygenation is associated with immune system activation, leading to a systemic inflammatory response and a procoagulant state that can ultimately cause organ injury, such as ischemic colitis. COVID-19 has demonstrated a wide range of gastrointestinal manifestations. We present a case of diffuse hemorrhagic enterocolitis with endoscopic biopsies showing diffuse mucosal damage with relative lack of inflammatory response. This histologic pattern of injury resembles immunosuppressed states and apoptosis-mediated processes. Based on timeline and findings, the

gastrointestinal tract injury is likely related to severe COVID-19.

**Conflicts of interest** The authors disclose no conflicts.

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© 2022 by the AGA Institute 1542-3565/\$36.00 https://doi.org/10.1016/j.cgh.2020.10.011