

Ischemic rectal necrosis after aortic valve replacement surgery successfully treated with conservative management

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To the Editor,

An 80-year-old female with history of aortic stenosis, heart failure, atrial fibrillation, hypertension and dyslipidemia underwent aortic valve replacement surgery. At 4th postoperative day (POD), she developed hemodynamic instability, followed by abdominal pain and bloody diarrhea. Abdominal computed tomography (CT) revealed wall thickening from descending colon to rectum and peri-rectal fat stranding (Figure 1). Sigmoidoscopy demonstrated diffuse dark purple discoloration of rectal mucosa with interspersed areas of ulceration (Figure 2) that extended to sigmoid, consistent with gangrenous ischemic proctosigmoiditis. Considering the importance of postoperative anticoagulation after placement of the mechanical aortic valve, emergency surgery was avoided. Vasopressor support, broad-spectrum intravenous antibiotics and bowel rest were started. She was closely monitored and, fortunately, evolved favorably with clinical and hemodynamical improvement. At 24th POD, there was symptomatic recurrence and sigmoidoscopy revealed friable granular rectal mucosa with no signs of active ischemia (Figure 2B). CMV was isolated in biopsies and valganciclovir was started with good response. At 65th POD, sigmoidoscopy revealed healing mucosa with areas covered by white exudate (Figure 2C). Biopsies were still weakly positive for CMV. Considering clinical and endoscopic improvement, it was interpreted as residual changes during the course of disease resolution. At 83rd POD, she was discharged home.

Ischemic proctosigmoiditis is rare because rectum has an excellent collateral arterial network. It usually affects elderly patients with multiple cardiovascular risk factors that present with abdominal pain, diarrhea and/or hematochezia in the setting of hemodynamic compromise or vascular surgery. CT may demonstrate wall thickening and peri-rectal fat stranding. Endoscopy may reveal erythema, ulceration or hemorrhages and, in more severe cases, necrosis (1). It may be difficult to distinguish from inflammatory bowel disease, infectious colitis or neoplasia (2).

Conservative management with supportive care, broad-

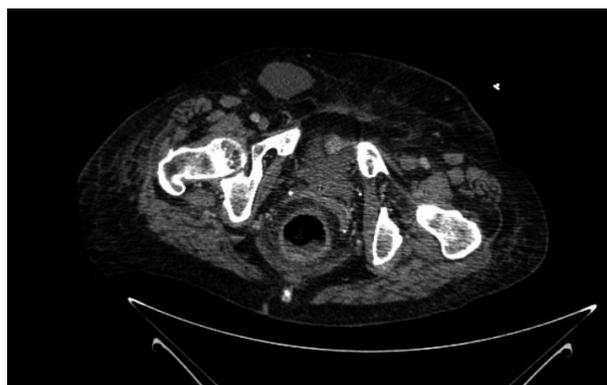


Figure 1. — Computerized tomography scan of abdomen and pelvis. Computerized tomography findings included wall thickening from descending colon to rectum. In this axial view of the pelvic region, rectal wall thickening and peri-rectal fat stranding may be seen, suggestive of ischemic disease involving this segment of the large bowel.



Figure 2. — Flexible sigmoidoscopy performed in different phases. This image panel illustrates endoscopic evolution of ischemic proctosigmoiditis from acute necrotic phase (A) to healing phases (B, C). (A) Flexible sigmoidoscopy performed at 5th postoperative day (onset of symptoms): ischemia of rectal mucosa, which exhibited diffuse dark purple discoloration, with some interspersed areas of ulceration, consistent with transmural necrosis. (B) Flexible sigmoidoscopy performed at 24th postoperative day: rectal mucosa exhibited diffuse granular appearance and friability. (C) Flexible sigmoidoscopy performed at 65th postoperative day: diffuse superficial mucosal ulceration, with some areas covered by white exudate, easily detachable with biopsy forceps.

spectrum antibiotics and close monitoring for signs of sepsis and perforation is usually sufficient for mild cases. In more severe cases, with deep ulceration, bleeding,

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perforation or transmural necrosis, surgical resection is recommended (3). However, surgical management is controversial. Whereas some authors recommend complete proctectomy as retention of necrotic rectum may add a persistent source of sepsis (3), others suggest that Hartmann's resection leaving a short rectal stump is equally effective and safe, avoiding the morbidity of abdominoperineal resection and the additional risk of emergency rectal resection in an already unstable patient (4,5) or that diverting ostomy of proximal viable bowel leaving the necrotic rectum may also be an acceptable alternative when rectal resection is not feasible (6).

This case was particularly challenging because, on one side, postoperative anticoagulation increased bleeding risk and surgical risk was prohibitive, but, on the other side, it was playing a fundamental role for prevention of thromboembolic complications following placement of a mechanical valve. Therefore, although rectal resection was indicated, we favored a non-surgical approach. Fortunately, the patient evolved favorably and surgery was not necessary. Therefore, although rectal necrosis warrants surgical resection in most circumstances, conservative treatment may represent an acceptable

alternative in selected scenarios when there are no signs of sepsis or perforation and, for some reason, surgical interventions must be avoided.

Disclosures

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