Title: Second trimester pregnancy complicated by Spontaneous Bowel Perforation and Colectomy in a Patient with Ulcerative Colitis: A Case Report

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Background/Synopsis: Ulcerative colitis is complicated by bowel perforations in approximately 1% of total cases (1). Bowel perforations during pregnancy are rare but life-threatening complications that require immediate surgical intervention regardless of gestational age. Such a life-threatening complication of inflammatory bowel disease (IBD), as in this case report, raises awareness for the management of ulcerative colitis during pregnancy. Both gastroenterology and maternal-fetal-medicine subspecialties recognize the potential difficulty of managing this disease during pregnancy. In 2019, *Gastroenterology* published a clinical care pathway for the management of IBD in women of reproductive age (2).

Objective/Purpose: The objective of this case report is to bring awareness to IBD complications during pregnancy and provide an opportunity to review current guidelines and literature regarding IBD as well as the clinical care algorithm proposed in the aforementioned *Gastroenterology* journal article.

Case Report: The patient is a 25-year-old female, gravida 1 para 0 at 23 weeks estimated gestational age (EGA) who presented as a maternal transport to Memorial Health University Medical Center due to a suspected “flare” of ulcerative colitis during pregnancy. The patient reported having acute onset of severe abdominal pain for approximately 3 hours prior to admission. The patient's abdomen was diffusely tender to palpation, prompting a CT scan of the abdomen and pelvis. The CT scan was notable for a pneumoperitoneum concerning for hollow viscus perforation, possible colonic perforation, multiple dilated small and large bowel loops with distal decompression of the rectosigmoid colon. Abdominal ascites was also appreciated. Given these critical findings, the patient underwent emergent exploratory laparotomy. Intraoperative findings were notable for a perforated transverse colon with gross spillage of stool. Ultimately, a total abdominal colectomy was performed. The post-surgical course was complicated by an abscess that formed in the cul-de-sac. The patient was placed on broad spectrum antibiotics and the patient’s condition remained fairly stable. An initial course of betamethasone to promote fetal lung maturation was initiated on postoperative day # 1. Eventually, the patient’s antenatal course was complicated by preterm premature rupture of membranes (PPROM) at 24 weeks 5 days EGA, on postoperative day # 12. The patient received a “rescue” course of antenatal steroids at that time and she remained on antibiotics. She also received a course of IV magnesium sulfate for fetal neuroprotection. The patient ultimately went into active preterm labor shortly thereafter and had a spontaneous vaginal delivery at 25 weeks EGA. After delivery of the neonate, the patient underwent percutaneous drainage of her pelvic abscess. This procedure along with aggressive antibiotic therapy resulted in a rapid stabilization and improvement in the patient's condition. The

patient was discharged home on postoperative day # 19 with prednisone Rx. The patient was seen for multiple postoperative appointments and she was discharged after the puerperium in good health. The neonate progressed appropriately during a 3 month NICU admission without untoward setbacks and was discharged home in promising condition with no apparent deficits. The infant was scheduled to be monitored in the Pediatric Developmental Clinic for long-term follow-up evaluations.

Conclusion: This case highlights a multidisciplinary approach to a pregnant patient with spontaneous bowel perforation with ulcerative colitis and allows for the discussion of the management, medical treatment and potential complications of inflammatory bowel disease in pregnancy.

References:

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