Clinical Manifestation, Disease Course, and Peri-Delivery Planning of Rectal Cancer During Pregnancy

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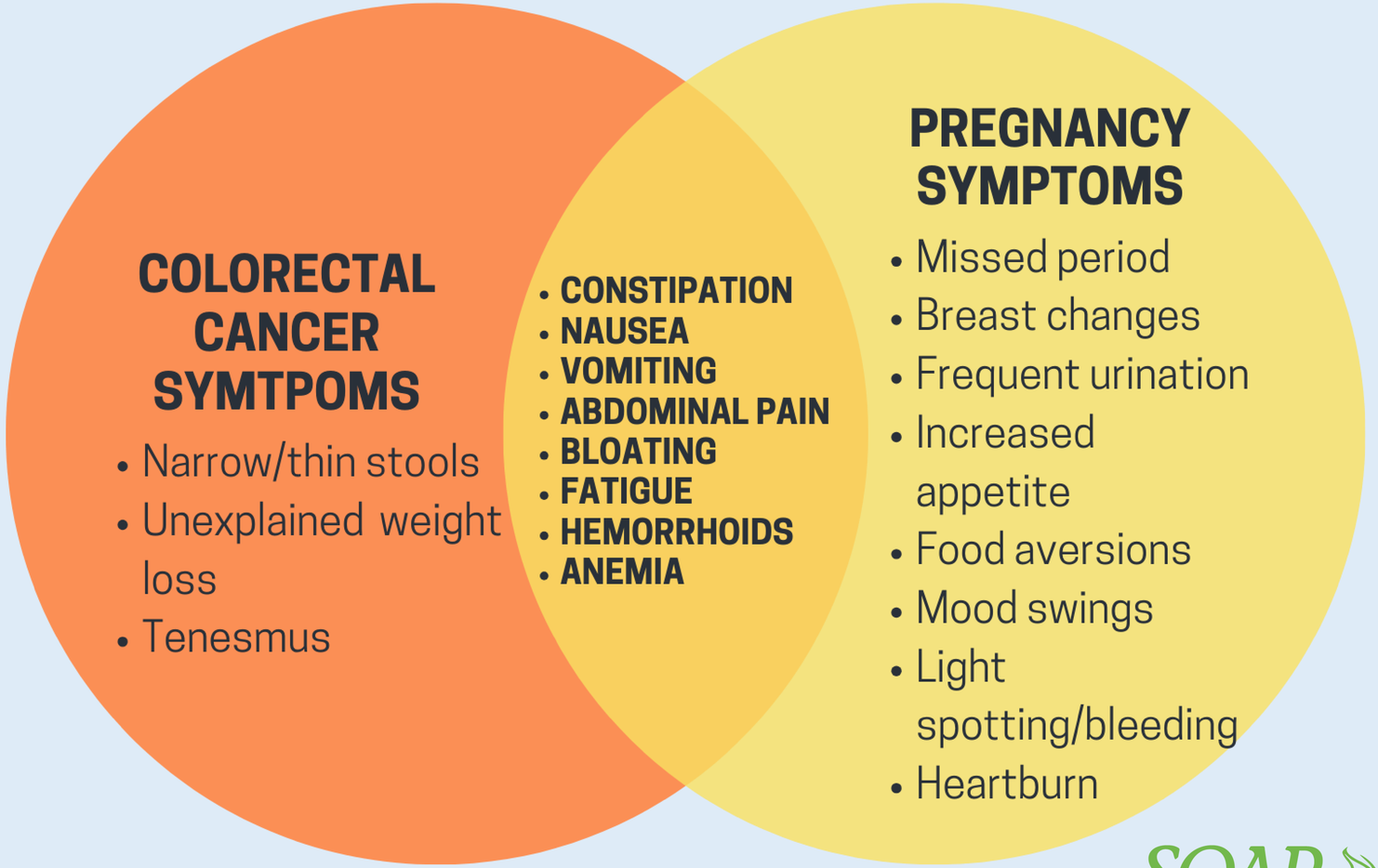
Background

- Cancer is the second leading cause of death among women of reproductive age
- Colorectal cancer (CRC) occurs in 1 out of 13,000 pregnancies
- CRC is often diagnosed at an advanced stage as symptoms can be overlooked as common disturbances of pregnancy
- There is no consensus on the management of CRC during pregnancy

Case Presentation

- 35-year-old G4P3 diagnosed with stage IIIC cT4bN1bM0 rectal carcinoma during pregnancy.



Case Presentation and Hospital Course

Initial Presentation

- Patient presented to outside hospital reporting severe constipation and fatigue. PMH significant for constipation, hemorrhoids, anemia, and a 15lb weight loss.
- MRI w/ "large stool ball"
- Sigmoidoscopy: infiltrative and ulcerated 20cm mass in the rectum causing partial obstruction
- Biopsy → adenocarcinoma
- Transferred to our institution for higher level of multidisciplinary care

24 WEEKS

25 WEEKS

Open diverting loop ostomy to obviate the risk of large bowel obstruction

26 & 28 WEEKS

2 rounds of FOLFOX chemotherapy

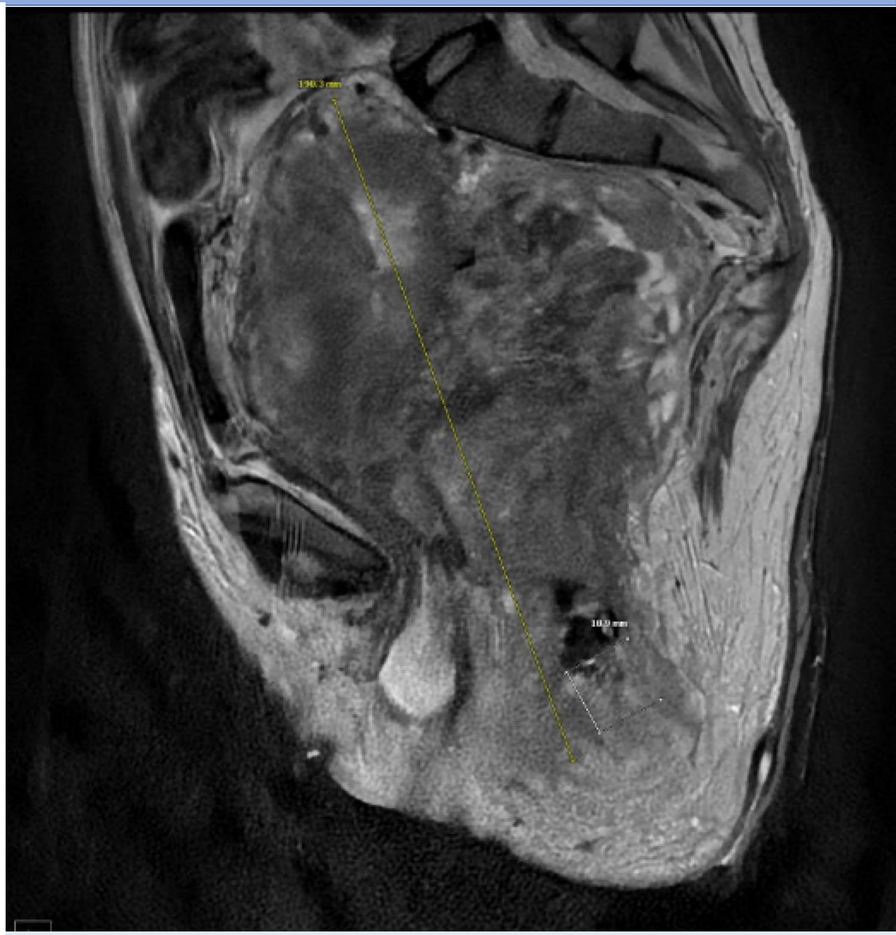
29 WEEKS

Complications

- Sepsis 2/2 necrotic tumor with perirectal abscess and concern for rectal perforation
- I&D w/ tumor necrosis and ongoing bleeding raised concerns regarding further hemorrhage and necessity of radiation treatment
- Patient began contracting and fetus developed intermittent late decelerations

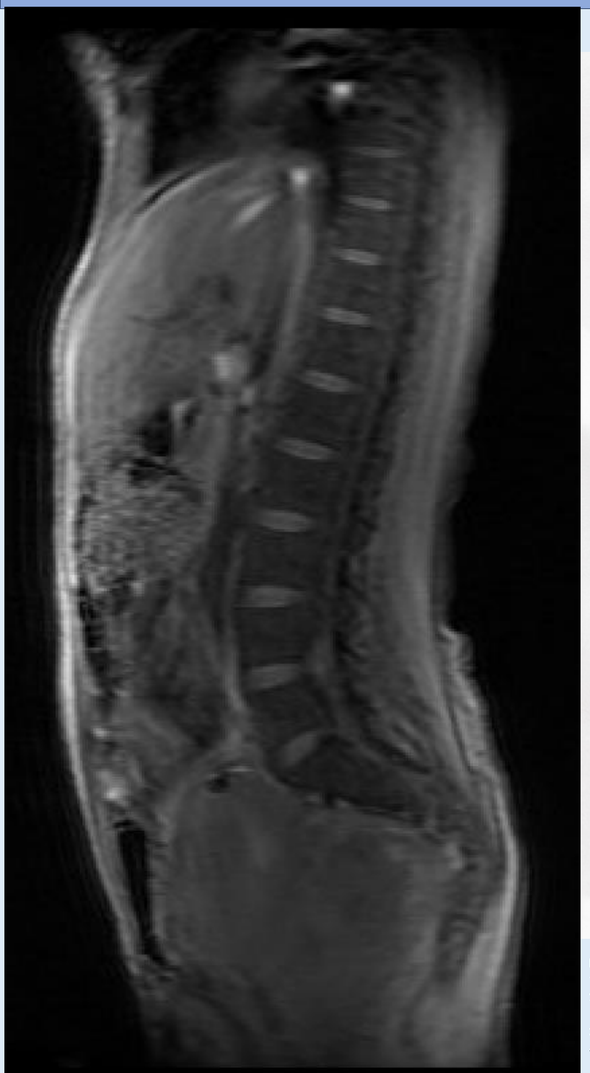
29 WEEKS AND 3 DAYS

Planned cesarean delivery under GA due to ongoing sepsis and high risk of emergent delivery



MRI Pelvis demonstrating 20cm rectal mass

Anesthetic Considerations and Management



PREOPERATIVE PLANNING

- Multidisciplinary planning: OB, OB anesthesia, gyn onc, colorectal surgery, MFM, NICU, critical care, medical oncology
- Concerns
  1) High risk of emergent delivery given ongoing sepsis and intermittent fetal decelerations
  2) High risk of surgical bleeding and/or tumor rupture
  3) Chemotherapy related concerns (i.e.anticipation of platelet nadir on FOLFOX)
  4) Neonatal concerns: prematurity, post-chemo precautions

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INTRAOPERATIVE COURSE

- Location: Main OR
- Anesthetic technique: GETA
- Monitors: Standard monitors + a-line
- 2x large bore PIV
- Type & cross
- Belmont available
- Pain management: continue methadone
- Uneventful intraoperative course without tumor rupture or significant bleeding
- Admitted to ICU post-op

References:
1. Bernstein, M. A., Madoff, R. D., & Caushaj, P. F. (1993). Colon and rectal cancer in pregnancy. *Diseases of the colon & rectum*, *36*(2), 172-178.
2. Pellino, G., Simillis, C., Kontovounisios, C B.,aird, D. L., Nikolaou, S., Warren, O., ... & Rasheed, S. (2017). Colorectal cancer diagnosed during pregnancy: systematic review and treatment pathways. *European journal of gastroenterology & hepatology*, *29*(7), 743-753.
3. Ghosh, D., & Boama, V. (2010). Undiagnosed rectal tumour–a rare cause of obstructed labour in the second stage. *Case Reports*, *2010*, bcr0220102768.
4. Kozai, L., Benavente, K., Obeidat, A., & Acoba, J. (2022). FOLFOXIRI in pregnant women with colorectal cancer: a case report and review of the literature. *Case Reports in Oncology*, *15*(1), 447-454.

Learning Points/Discussion

- Rectal cancer in pregnancy is extremely rare
- Despite the uncomplicated cesarean delivery of the patient described, potential complications included cancer progression, obstruction of the vaginal canal, hemorrhage risk during delivery, mass perforation, and the effects of chemotherapy and prematurity on the fetus
- Sepsis was a relative contraindication to neuraxial anesthesia