Challenges associated with colorectal cancer in pregnancy: an unusual disease with usual presentation

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ABSTRACT

Background: Globally, colorectal cancer is a substantial health burden. This case will discuss about challenges during management due to pregnancy. To the best of authors' knowledge, very few cases of this type have been reported in the literature.

Case Presentation: A 20-year-old married, pregnant female, second gravid and para 1 presented during her 34th week of gestation, with complaints of something coming out of the anus, bleeding per rectum, abdominal distension, and relative constipation for 8 months. Carcinoembryonic antigen was normal. CT scan and MRI showed circumferential mural thickening of length 7.5 cm involving anal canal and anorectal junction, associated with perilesional fat stranding. The neoadjuvant chemoradiotherapy was advised after c section.

Conclusion: This case report highlights the fact that early detection and management of colorectal cancer during pregnancy can prevent morbidity and mortality.

Keywords: Colorectal cancer, Pregnancy, case report.

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Background

Globally, colorectal cancer is a substantial health burden. It is rare in pregnancy, with an incidence of 1 in 13,000 pregnancies [1]. It is the seventh most common type of cancer found in pregnancy [2]. Most tumors were localized in the rectum (63%) and the sigmoid colon (20%).

Common presenting symptoms include altered bowel habits, abdominal pain, bleeding per rectum, vomiting, and anemia. All these symptoms can be misdiagnosed as common symptoms of normal pregnancy; this is a major reason for the delay in diagnosis, allowing more spread and making it difficult to treat [1]. The pathogenesis of colorectal cancer in pregnancy is not fully understood but increased estrogen and progesterone receptor.

The purpose of this case report is to increase awareness regarding the presentation of colorectal cancer in pregnancy, given the similarity of symptoms in normal pregnancy and cancer.

Case Presentation

A 20-year-old married, pregnant female, second gravida and para 1 presented during her 34th week of gestation, with complaints of something coming out of the anus, bleeding per rectum, abdominal distension, and relative constipation for 8 months. She went to a local hospital where she was examined, and a growth was found in the anal canal for which punch biopsy was done which showed signet ring cell adenocarcinoma.

She was well oriented to time, place, and person. Abdominal examination was normal with a gravid uterus. On Digital rectal examination (DRE), there was ulcerating, non-obstructing growth starting anteriorly from anal margin reaching up to 6 cm, the upper limit can be reached, mobile over the vaginal wall. The posterior rectal wall was disease free. She underwent emergency lower segment C-section, delivered a healthy baby at 37 weeks of gestation. Her workup was done. Carcinoembryonic antigen (CEA) levels was 3.2 ng %. CT scan and MRI showed circumferential mural thickening of length 7.5 cm involving anal canal and anorectal junction, associated with perilesional fat stranding (Figure 1). Anteriorly abutting the posterior wall of lower cervical canal and posterior vaginal vault with loss of intervening fat planes. Laterally infiltrating the bilateral levator ani muscles. There was perianal and peri Rectal lymphadenopathy. No evidence of pleuropulmonary, hepatic, adrenal, or osseous metastasis.

We planned Neoadjuvant chemoradiotherapy after laparoscopic transposition of ovaries.

Discussion

In 1842, the first case of colorectal cancer in pregnancy was reported by Cruveilhier. Although it is rare



Figure 1. MRI showing locally advanced colorectal cancer.

in pregnancy, an increase in incidence has been reported over time, ranging from 1:100 000 to 1:50 000 deliveries in 1950, and 1:13 000 in more recent publications [3].

Its clinical presentation, diagnosis, and treatment options seem a big challenge because the presentation is quite like that of normal pregnancy. Symptoms include abdominal pain, constipation, nausea, vomiting, and anemia; these symptoms are nonspecific and are usually masked by normal pregnancy.

The carcinoembryonic antigen test is less sensitive and specific in CRC in pregnancy, as CEA levels are normally increased in pregnancy. Values above 10 mg/l should be investigated without delay. CEA levels are used for following up for recurrence of pregnant cancer patients [4]. CT scan is the standard imaging technique in detecting locoregional and distant disease in CRC, but it is not recommended in pregnancy because of carcinogenic and teratogenic effects on fetus. The MRI without the use of gadolinium seems to be safe in pregnancy and is preferred to CT for cancer staging in pregnancy [4]. Colonoscopy is the most definitive diagnostic modality in diagnosing colorectal cancer but is avoided in pregnancy because of risk of uterine pressure, placental abruption, and intestinal perforation.

Most cases (64%–86%) of colorectal cancer in pregnancy tend to involve the rectum and mainly (60%) present at stage III so Neoadjuvant chemoradiotherapy is the key for complete resection of tumor [5].

In the first 20 weeks of gestation, surgical resection of tumor is indicated to minimize the risk of disease progression. After 20 weeks of gestation, surgery can be delayed till the delivery of viable the fetus and then treatment started. Mode of delivery could be vaginal or cesarean section. Vaginal delivery is recommended in cases of colonic tumors. For rectal tumors particularly involving anterior rectum, the caesarian section is preferred because of the risks of bleeding related to the vaginal pressure during vaginal delivery [6].

Laparoscopic ovarian transposition is a recognized method to preserve ovarian function [7]. Our patient had a locally advanced disease, so after delivering her baby, her laparoscopic transposition of ovaries was done and then she was sent for neoadjuvant chemoradiotherapy.

The suggested treatment for this case is neoadjuvant long course chemoradiotherapy followed by surgery (Abdominoperineal resection).

Conclusion

Rectal bleeding during pregnancy may be an ominous sign and should always be properly assessed and worked up.

What is new?

Colorectal cancer is rare in pregnancy, an increase in incidence has been reported over time, ranging from 1:100,000 to 1: 50,000 deliveries in 1950 and 1:13,000 in more recent publications. In our case, female was of young age presented with locally advanced disease that is why she was referred to oncology for chemoradiotherapy if she would have been presented earlier then surgery was the option prior to chemoradiotherapy.

List of Abbreviation

CT scan Computed tomography scan MRI Magnetic resonance imaging

Consent for publication

A written informed consent was taken from the patient for publication.

Ethical approval

Ethical approval is not required at our institution to publish an anonymous case report.

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Summary of the case

1	Patient (gender, age)	Female, 20	
2	Final diagnosis	Colorectal Cancer during pregnancy	
3	Symptoms	Bleeding per rectum, constipation and something coming out of anus	
4	Medications	Stool softeners, ispaghol husk	
5	Clinical procedure	Laparoscopic Ovarian Transposition	
6	Specialty	General Surgery	