

INCIDENCE OF ECTOPIC PREGNANCY (EP) UNCOMMON IN WOMEN WITH IBD: EXPERIENCE AT A TERTIARY IBD CENTER IN THE BIOLOGIC ERA

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ABSTRACT

INTRODUCTION

Ulcerative colitis (UC) and Crohn's disease (CD) are chronic autoimmune diseases that characteristically affect younger individuals during their peak reproductive years¹. Women with IBD often have risk factors for ectopic pregnancy (EP) such as previous abdominal or pelvic surgery, pelvic abscesses/sepsis, or intra-abdominal adhesions. The data on the incidence of EP in the era of biologic use is scarce. We were interested in the rate of EP at our IBD Center where biologics are recommended before and during pregnancy.

OBJECTIVE

We were interested in assessing the incidence of EP in our population, in particular taking into account disease activity and use of biologics to control disease activity.

METHODS

Legal sex females with a diagnosis of ulcerative colitis (UC), Crohn's disease (CD) or inflammatory bowel disease (IBD-U) were pulled from the Epic database from January 1, 2015- October 27, 2021. This list was then further searched for "ectopic pregnancy" using ICD-10 code and SNOMED concepts. A chart review was performed and patient disease and pregnancy specific variables were evaluated.

RESULTS

20,624 legal sex females with CD, UC or IBD were identified. 335 patients were diagnosed with a pregnancy event. 6 patients had an ectopic pregnancy. Of interest, only 4 patients had a diagnosis of UC or CD before their EP (0.01%). Of these 4 patients, 3 had UC and 1 had CD. Duration of disease prior to EP ranged from 6 months to 4 years. Of the three patients with UC, all three patients were in remission on either aminosalicylates or anti TNF agents. The patient with CD had mild activity, was status post one resection and on no medication at the time of the EP.

CONCLUSIONS

EP in our practice was uncommon, with a very low incidence rate. The patients with UC did not have common risk factors for EP and were in remission at the time of their event.

BACKGROUND

The prevalence of an ectopic pregnancy among women who go to an emergency department with first trimester bleeding, pain, or both ranges from 6% to 16%². The overall incidence of EP increased during the mid-20th century, plateauing at approximately almost 20 per 1000 pregnancies in the early 1990s in the United States³. To date, studies regarding EP in IBD have been limited because of small sample size. The single large population-based cohort study was not able to account for medication use, disease activity or severity, and was published prior to wide-spread use of anti-TNF agents in the preconception and pregnancy states⁴.

OBJECTIVES

- Identify ectopic pregnancy (EP) in patients with a diagnosis of UC, CD, or IBD-U.
- Compare rate of ectopic pregnancy from clinical sample with published rates, and look at specific case factors for those patients that did have an ectopic pregnancy.

METHODS

- Legal sex females with a diagnosis of UC, CD, or IBD-U were identified using Epic search tool from the dates of January 1, 2015- October 27, 2021. These dates used as the use of biologics more accepted.
- This list of patients was then searched for pregnancy events and specifically EP using ICD-10 code and SNO-MED Concepts.
- Patient demographics included age at time of conception, race, smoking history.
- Disease specific variables included diagnosis, history of surgeries, current and previous medications, and disease activity at the time of conception using clinical indices.
- Pregnancy specific variables included parity, history of previous pregnancy loss, history of Caesarean section, or endometriosis and treatment of EP.

RESULTS 1

- 20,624 legal sex females with CD, UC or IBD-U were identified
- 335 patients had a pregnancy event
- 6 patients had an EP
- Only 4 patients had a diagnosis prior to EP
- Of 4 patients, 3 had UC and 1 had CD

DISCUSSION

- Our preliminary study demonstrated relatively fewer than expected EP in our study population.
- Interestingly three of the EP took place in patients when disease was in remission,
- No clear demographic or medical variables were associated with EP.
- Methotrexate was used as therapeutic agent in one patient.

CONCLUSIONS

- EP may be lower than previously thought amongst patients with an IBD diagnosis using newer therapies.
- Larger population-based studies are needed to assess the risk of EP with continued use of biologics before and during pregnancy.
- It is unclear which clinical variables may increase or decrease the risk of EP in this population.

TABLE 1: Disease and Demographic Information

Patient	Diagnosis	Race	Smoking Status	# of Preg before EP	# of Preg after EP	Time from Diagnosis to EP (In years)	Age at time of EP	Disease Status at time of EP	Current Meds at Time of EP	EP Treatment
1	UC with PSC	African American	No					Remission	infliximab, 5-ASA, vedolizumab	tubal ligation
2	UC	White	No			3.25	32	Remission	balsalazide	methotrexate
3	UC	White	Former	5 SAB	1	0.48	28	Remission	budesonide, 5-ASA	right salpingectomy
4	CD	White	Former	3		4.35	38	Mild activity	None	right salpingectomy

RESULTS 2

- 4 patients had a diagnosis of UC or CD prior to ectopic pregnancy
- 3 patients had UC in remission prior to EP
- Of patients with known dates for EP, the average length between diagnosis of CD or UC to EP was 2.7 years
- Calculated rate for number of ectopic pregnancies in sample was 12 per 1000 pregnancies

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