



Original Research Article

The Effect of Pregnancy on Women with Inflammatory Bowel Disease

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ABSTRACT

Keywords

IBD –
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The effect of pregnancy on IBD; new development, severity, remissions and relapses, as well the occurrence of complications. Inflammatory bowel disease (IBD) predominantly affects the younger-aged population and therefore is prominent in women of child-bearing age. It often requires medication for maintenance of remission. Here comes the question that would be asked to a gastroenterologist and or the gynecologist; can I get pregnant with the disease, and the question for mild to moderate controlled disease according to our study should be :yes but With a strict follow up, however we think that patients with severe activity should wait till the condition improves.

Introduction

Inflammatory bowel disease (IBD) predominantly affects the younger-aged population and therefore is prominent in women of child-bearing age. It often requires medication for maintenance of remission^[1]. Literature on pregnancy in IBD has mainly utilized tertiary hospital cohorts and focused on pregnancy outcomes. Current guidelines emphasize the importance of inducing and maintaining disease remission prior to conception and during pregnancy^[1,2]. Studies of patients' perspective of the influence of IBD on fertility, pregnancy and breastfeeding are highly relevant and beginning to emerge. Active disease during pregnancy has been linked to adverse pregnancy outcomes of low birth

weight, pre-term birth and fetal loss^[3,4-5]. Population-based studies have, however, reported conflicting results. In 461 women (300 with UC) of the Kaiser Permanente population in North America, no correlation between adverse pregnancy outcomes and disease activity was found^[6], while a study of 157 Danish women with CD revealed that active disease increased the risk of pre-term birth^[7]. The higher proportion of patients with active disease in the Danish study (45% vs 20% in the Kaiser Permanente population) may explain this difference⁽⁸⁾. So revising most of the literature, most studies focused of the effect of IBD and their treatment on the outcome of pregnancy. However we will try to focus on the effect of pregnancy on the status,

severity and complications of IBD. The effect of pregnancy on IBD; new development, severity, remissions and relapses, as well the occurrence of complications.

Materials and Methods

This was a prospective observational study that included 32 females with a confirmed diagnosis of inflammatory bowel disease (21 ulcerative colitis and 11 crohn's disease) that became pregnant. All patients were previously diagnosed by; endoscopy, radiology and lab tests and were under follow up in the gastroenterology clinic, When they became pregnant an obstetrician was involved with the gastroenterologist for proper antenatal care till delivery. Antenatal care was properly carried and routine visits to gastroenterologist and the following was routinely carried out and any other investigations as needed. We were ready to for any interventions if needed:

1-Abdominal and pelvic (obstetrics) ultrasound. 2-CBC. 3-Liver functions. 4-ESR. 5-CRP. 6-urine and stool analysis. 7-limited sigmoidoscopy, surgery for IBD and/or abortion were all available options if needed. Exclusion criteria: Any patient who's diagnosis was not confirmed. Or diagnoses as indeterminate colitis.

Results and Discussion

The studied group had an age range 19-41 years old. All patients were already diagnosed and were all under treatment (only patients on azathioprine for crohn's disease had to stop with increase dosage of steroids for 4 patients with moderate disease activity). Twenty one (21) were diagnosed with ulcerative colitis and 11 had crohn's. The patients group with ulcerative colitis had 3 (14%) patients who

were asymptomatic and their disease activity was not affected by the pregnancy process. Eleven (11) patients (52%) of the patients had mild disease activity 2 of which became asymptomatic during pregnancy. Seven (7) patients with moderate disease activity before pregnancy; 1 of which had alleviation of her symptoms during the course of pregnancy, 1 patient had worsening of her symptoms and had severe disease activity up to fulminate colitis at 14 weeks of pregnancy and had to terminate pregnancy and was hospitalized and her workup eventually led to the necessity of doing total colectomy and recovered well.

The 11 patients with crohn's disease; 3 were asymptomatic, 6 had mild disease and 2 patients had moderate disease mainly small intestinal disease. The 11 patients had a rather stationary course during pregnancy with no change in the severity of the disease, however 2 patients developed diabetes during pregnancy out of the 4 patients who stopped azathioprine and increased their steroid dosage both of which resolved after delivery and decreasing the steroids dose. Results are summarized in table (1). Age, parity and initial treatment regimens had no relation with the changes in the course of the disease during pregnancy ($P>0.01$).

Although this is a secondary objective; the effect of IBD patients disease and disease activity on pregnancy outcomes was also recorded. From the studied population out of the 32 patients; 3 patients had preterm labour (1UC & 2 Crohn's) of healthy babies. One patient had fulminant ulcerative colitis and had to induce abortion and treatment thereafter, 2 patients had DM during pregnancy, however this may be attributed to increased steroid dosage (table 2).

Table.1 Disease Activity

Disease	Number	Activity	Stationary course	Increased disease activity	Decreased disease activity	Complications
U.C	21	3 asymt. 11 mild 7 mod.	Y N N	N N Y	N 2 Asymtomatic 1	N N 1 fulmination
Crhon's	11	3 asymt. 6 mild 2 mod.	Y Y Y	N N N	N N N	N 1 DM 1 DM

Table.2 Complications of pregnancy in IBD

Complications of pregnancy in IBD	Patient's diagnosis
Pre-term labour	1 Mild UC 2 Crohn's (1 mild-1 Moderate)
Inducing abortion	1 UC
DM	2 Crohn's

Worldwide the frequencies of inflammatory bowel disease, ulcerative colitis and Crohn's disease have all increased. In our own environment it has become necessary to establish the epidemiology of these entities and to determine their clinical and endoscopic behavior. Most studies focused on the Effects of IBD and IBD disease activity on pregnancy. Active disease during pregnancy has been linked to adverse pregnancy outcomes of low birth weight, pre-term birth and fetal loss[9,4-6]. Population-based studies have, however, reported conflicting results. In 461 women (300 with UC) of the Kaiser Permanente population in North America, no correlation between adverse pregnancy outcomes and disease activity was found [11], while a study of 157 Danish women with CD revealed that active disease increased the risk of pre-term birth [18]. The higher proportion of patients with

active disease in the Danish study (45% vs 20% in the Kaiser Permanente population) may explain this difference. Some studies, including a meta-analysis by Cornish et al. [19], reported an increase in pre-term births in IBD patients [11]. Other studies, however, that differentiated UC from CD found an increase in pre-term birth rates for patients with CD only[20-21]. CD women also delivered lower birth weight babies than healthy controls and UC women [20-21]. It is important to recognize that all studies examining pregnancy outcomes in IBD used healthy women controls rather than those with other chronic inflammatory bowel diseases. So in our study in contrast to other studies the effect of pregnancy on altering inflammatory bowel disease activity; through we found that pregnancy itself doesn't pose extra risk for disease flaring during pregnancy. We think that this might be attributed to a low immune

status during pregnancy. Another factor is that women with prior diagnosis of inflammatory bowel disease, has sought some kind of treatment before getting pregnant. Here comes the question that would be asked to a gastroenterologist and or the gynecologist; can I get pregnant with the disease, and the question for mild to moderate controlled disease according to our study should be :yes but With a strict follow up, however we think that patients with severe activity should wait till the condition improves.

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