

## **Fertility in Inflammatory Bowel Diseases (IBD) Fact Sheet for Advanced Practice Providers**

Inflammatory bowel disease affects women in their reproductive years. As IBD healthcare providers we are at times faced with fertility and pregnancy-related questions, more so from our female patients than from our male patients. However, in certain situations, fertility in males can be affected as well. Fertility is the natural ability to produce offspring, whereas fecundity is the potential for reproduction.

IBD has a major impact on patients' decisions regarding family planning and it is our responsibility as providers to educate our patients. Use the below facts to share with your female and male patients.

### **Fertility in Women:**

- It was estimated that about 1.6 million people in the United States suffer from IBD, most of whom are diagnosed before age 35, during their reproductive years (Dahlmahr, Zammitti, Ward, Wheaton, and Croft, 2015). Of these, about 25% of women with IBD are expected to become pregnant after their diagnosis with IBD (Crohn's & Colitis Factbook, 2014).
- Women with ulcerative colitis (UC) in remission, who have not undergone pelvic surgery, tend to have fertility rates comparable to women of the same age group without UC (Cornish, Tan, Teare, Teoh, Rai, Clark, et al., 2007) (Hashash and Kane, 2015).
- Surgery for UC typically involves a total proctocolectomy (TPC) with or without creation of an ileal pouch anal anastomosis (IPAA).
- Women who undergo a proctocolectomy with ileostomy or creation of an IPAA also experience a reduction in fecundity (Martin, Kane, and Feagins, 2016).
- With pelvic dissection, adhesions may form in female patients, affecting fallopian tube patency. (Hashash and Kane, 2015)
- Waljee, et al., reported a 3-fold increased risk for infecundity in patients who had an IPAA: 15% to 48% in women post-IPAA (Waljee, Waljee, Morris, and Higgins, 2006).
- Fecundity rates are further compromised in women who undergo open IPAA compared to those who undergo laparoscopic IPAA (Hashash and Kane, 2015).
- It is strongly recommended that women who have not completed their families avoid pelvic dissection until they have done so. Other options include:
  - Subtotal colectomy with end-ileostomy, with Hartman's pouch
  - In vitro fertilization
- Fertility rates of women with Crohn's disease in remission, who have not undergone pelvic surgery, are similar to those without IBD of the same age group (Hashash and Kane, 2015).
- Women with active IBD may also have decreased fertility (Ban, Tata, Humes, Fiaschi, and Card, 2015).

- Ideally, women should be in remission for at least 6 months prior to conceiving (Cornish, Tan, Teare, Teoh, Rai, Clark, et al., 2007)

### **Fertility in Men:**

- Reversible infertility in men on sulfasalazine is well documented. It causes abnormalities in motility, morphology, and sperm number (Mahadevan, 2006).
- Proctocolectomy with IPAA in men may also be associated with sexual dysfunction. They may experience retrograde ejaculation and erectile dysfunction (Mahadevan, 2006).

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### **References**

- Ban, L., Tata, L. J., Humes, D. J., Fiaschi, L. & Card, T. (2015). Decreased fertility rates in 9639 women diagnosed with inflammatory bowel disease: A United Kingdom population-based cohort study. *Aliment Pharmacol Ther*, 42, 855-866.
- Cornish, J., Tan, E., Teare, J., Teoh, T. G., Rai, R., Clark, S. K., & Tekkis, P. P. (2007). A meta-analysis on the influence of inflammatory bowel disease on pregnancy. *Gut*, 56(6), 830–837.
- Crohn's & Colitis Factbook. (2014). The facts about inflammatory bowel diseases. Retrieved June 15, 2018. Retrieved from <http://www.crohnscolitisfoundation.org/assets/pdfs/updatedibdifactbook.pdf>
- Dahlhamer, J.M., Zammitti, E.P., Ward, B.W., Wheaton, A.G., & Croft, J.B. (2016). Prevalence of inflammatory bowel disease among adults aged ≥18 years—United States, 2015. *MMWR Morb Mortal Wkly Rep*. 65(42), 1166–1169.
- Hashash, J. G., & Kane, S. (2015). Pregnancy and Inflammatory Bowel Disease. *Gastroenterology & Hepatology*, 11(2), 96–102.
- Mahadevan, U. (2006). Fertility and pregnancy in the patient with inflammatory bowel disease *Gut*, 55,1198-1206.
- Martin, J., Kane, S. V., & Feagins, L. A. (2016). Fertility and Contraception in Women with Inflammatory Bowel Disease. *Gastroenterology & hepatology*, 12(2), 101-9.
- Waljee, A., Waljee, J., Morris, A. M., & Higgins, P. D. R. (2006). Threefold increased risk of infertility: a meta-analysis of infertility after ileal pouch anal anastomosis in ulcerative colitis. *Gut*, 55(11), 1575–1580.

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