



## SESSION 2

### CANCER AND IBD

#### Does My Treatment Cause Cancer?

Millie Long, MD MPH

Patients with inflammatory bowel disease (IBD) are at increased risk for malignancy, likely due to innate immune dysfunction, ongoing inflammation, and immunosuppressive therapies used for treatment. Over time, rates of gastrointestinal malignancy have declined without an increase in extraintestinal malignancies.<sup>1</sup> Patients with IBD have an increased risk of lymphoma, the majority of which are non-Hodgkin's lymphoma and Epstein-Barr virus positive. Thiopurines and anti-tumor necrosis factor-alpha (anti-TNF) agents have been associated with increased risks of lymphoma. Importantly, after discontinuation of a thiopurine, lymphoma risk returns to baseline. Patients with IBD also have an increased risk of both non-melanoma skin cancer (NMSC) and melanoma. Thiopurines have been associated with a 4-fold increased risk of NMSC, whereas anti-TNF agents are associated with nearly a 2-fold increased risk of melanoma.<sup>2</sup> Tofacitinib has also been shown to increase NMSC risk.<sup>3</sup> The newer biologic agents, vedolizumab or ustekinumab, have not been associated with these increased risks.<sup>4,5</sup>

Recurrence risk for malignancies in patients with IBD is based on the individual type of cancer. Data to date are reassuring, albeit limited, in regard to the impact of various IBD therapies on recurrence.<sup>6</sup> When communicating risk with patients, it is important to describe the risk-benefit ratio, including the risks of untreated inflammation over time. It is helpful to use absolute numbers and common denominators. Finally, prevention is possible for many forms of malignancy in IBD. Recommendations for primary and secondary preventive modalities (such as sunscreen use and screening tests) are important to prevent complications in the long term.

#### References

1. Kappelman MD, Farkas DK, Long MD, et al. Risk of cancer in patients with inflammatory bowel diseases: a nationwide population-based cohort study with 30 years of follow-up evaluation. *Clin Gastroenterol Hepatol*. 2014;12:265–73.e1.
2. Long MD, Martin CF, Pipkin CA, et al. Risk of melanoma and nonmelanoma skin cancer among patients with inflammatory bowel disease. *Gastroenterology*. 2012;143:390–99.e1.
3. Sandborn WJ, Su C, Sands BE, et al. Tofacitinib as Induction and Maintenance Therapy for Ulcerative Colitis. *N Engl J Med*. 2017;376(18):1723–36.
4. Colombel J-F, Sands BE, Rutgeerts P, et al. The safety of vedolizumab for ulcerative colitis and Crohn's disease. *Gut*. 2017;66:839–51.
5. Panaccione R, Danese S, Sandborn WJ, et al Ustekinumab is effective and safe for ulcerative colitis through 2 years of maintenance therapy. *Aliment Pharmacol Ther*. 2020; Oct 21. Epub ahead of print.
6. Shelton E, Laharie D, Scott FI, et al. Cancer Recurrence Following Immune-Suppressive Therapies in Patients With Immune-Mediated Diseases: A Systematic Review and Meta-analysis. *Gastroenterology*. 2016;151:97–109.e4.