

available at www.sciencedirect.com
journal homepage: www.europeanurology.com



European Association of Urology



Letter to the Editor

Reply to Zeynep G. Gul, Alberto Martini, and Carl A. Olsson's Letter to the Editor re: Jacob A. Burns, Adam B. Weiner, William J. Catalona, et al. Inflammatory Bowel Disease and the Risk of Prostate Cancer. Eur Urol 2019;75:846–52

We thank Gul et al. for their thoughtful letter on our paper [1]. They correctly note that previous studies and meta-analyses have produced inconsistent findings regarding the relationship between inflammatory bowel disease (IBD) and prostate cancer (PC) [2–7]. As these studies were primarily population-based analyses of IBD and general cancer risk without a specific focus on PC, demographic factors may explain this phenomenon in some cases. For example, Gul et al. comment on one study that found that PC was associated with ulcerative colitis but not with Crohn's disease. In this study, the ulcerative colitis group was older than the Crohn's disease group (median age 41 vs 29 yr) [8]. As PC is a disease of older men, this could certainly have impacted the study findings. However, we agree that to better understand the IBD-PC relationship it is critical to evaluate this growing body of literature to identify the underlying factors that may impact the risk of PC in at least some IBD patients.

Gul et al. highlight a previous study that linked use of aminosalicylates to a lower risk of PC. Our study did not detect an association between use of systemic biologic agents and PC; however, we were limited by our inability to quantify the duration of use of these agents. Given the association of other malignancies with immunomodulation in IBD [9], this remains an important consideration in PC. Furthermore, we agree that shared genetic pathways between IBD and PC are an important mechanistic link to consider. Work by our group is currently under way to analyze the molecular signatures of primary PC among men with IBD, PC in a murine model with IBD, and the fecal

microbiome of men with IBD and PC. In addition, our group is currently conducting a prospective analysis of PSA values among men with IBD at various time points relative to a disease flare (NCT03558048). We hope that these studies will lead to a greater understanding of the mechanisms underlying IBD and the risk of PC.

We believe that our study is just a starting point to begin to understand what we agree is probably a complex and nuanced relationship between IBD and PC. We appreciate the comments from Gul and colleagues highlighting some of the most important areas for further investigation, with the eventual goal of optimizing PC screening and detection among patients with IBD.

Conflicts of interest: The authors have nothing to disclose.

References

- [1] Burns JA, Weiner AB, Catalona WJ, et al. Inflammatory bowel disease and the risk of prostate cancer. *Eur Urol* 2019;75:846–52.
- [2] Pedersen N, Duricova D, Elkjaer M, Gamborg M, Munkholm P, Jess T. Risk of extra-intestinal cancer in inflammatory bowel disease: meta-analysis of population-based cohort studies. *Am J Gastroenterol* 2010;105:1480–7.
- [3] Jung YS, Han M, Park S, Kim WH, Cheon JH. Cancer risk in the early stages of inflammatory bowel disease in Korean patients: a nationwide population-based study. *J Crohns Colitis* 2017;11:954–62.
- [4] Jess T, Horvath-Puho E, Fallingborg J, Rasmussen HH, Jacobsen BA. Cancer risk in inflammatory bowel disease according to patient phenotype and treatment: a Danish population-based cohort study. *Am J Gastroenterol* 2013;108:1869–76.
- [5] Mosher CA, Brown GR, Weideman RA, et al. Incidence of colorectal cancer and extracolonic cancers in veteran patients with inflammatory bowel disease. *Inflamm Bowel Dis* 2018;24:617–23.
- [6] Wilson JC, Furlano RI, Jick SS, Meier CR. A population-based study examining the risk of malignancy in patients diagnosed with inflammatory bowel disease. *J Gastroenterol* 2016;51:1050–62.

DOIs of original articles: <https://doi.org/10.1016/j.eururo.2018.11.039>, <https://doi.org/10.1016/j.eururo.2019.05.026>.

<https://doi.org/10.1016/j.eururo.2019.05.027>

0302-2838/© 2019 Published by Elsevier B.V. on behalf of European Association of Urology.



- [7] van den Heuvel TR, Wintjens DS, Jeuring SF, et al. Inflammatory bowel disease, cancer and medication: cancer risk in the Dutch population-based IBDL cohort. *Int J Cancer* 2016;139:1270–80.
- [8] So J, Tang W, Leung WK, et al. Cancer risk in 2621 Chinese patients with inflammatory bowel disease: a population-based cohort study. *Inflamm Bowel Dis* 2017;23:2061–8.
- [9] Biancone L, Onali S, Petruzzello C, Calabrese E, Pallone F. Cancer and immunomodulators in inflammatory bowel diseases. *Inflamm Bowel Dis* 2015;21:674–98.

Jacob A. Burns
Adam B. Weiner
Shilajit Kundu*

Department of Urology, Northwestern Medicine, Chicago, IL, USA

*Corresponding author. Department of Urology, Northwestern Medicine,
675 North St. Clair, Chicago, IL 60611, USA. Tel. +1 312 6956125;

Fax: +1 312 6957030.

E-mail address: skundu@nmff.org (S. Kundu).

May 17, 2019