Peer Review File

Article information: https://dx.doi.org/10.21037/tgh-23-36

Reviewer A

In this work, Fatakhova and Rajapakse made an extensive review focused on colonic dysplasia in patients with IBD. The work is of excellent quality. The objectives are clearly defined and developed. I think it can be published with changes.

Major concerns:

Comment 1: - Line 66. Add this commentary with the reference:

Location of the lesions in the right colon may be another risk factor for dysplasia (López-Serrano A, Suárez MJ, Besó P, Algarra A, Latorre P, Barrachina MM, et al. Virtual chromoendoscopy with iSCAN as an alternative method to dye-spray chromoendoscopy for dysplasia detection in long-standing colonic inflammatory bowel disease: a case-control study. Scand J Gastroenterol. 2021;56:820-828).

Reply 1: We have modified our text as advised

Changes in the text: As above

Comment 2: Lines 227-228. Alexandersson and coworkers found that HD-CE with random biopsies was superior to HD-WLE with random biopsies to detect dysplasia, but this occurred only in 6 of 30 (20%) cases. So, 80% cases were detected by targeted biopsies. In conclusion, this article indicates that random biopsies and targeted biopsies are necessary if HD-CE is performed.

Reply 2: We have omitted this from the review.

Changes in the text: As above

Comment 3: Lines 276-287. The authors have to explain if patients with PSC and only proctitis or proctosigmoiditis are considered at increased risk for IBD related CRC. So, they require first surveillance at the time of diagnosis. On the contrary, only patients with PSC and extensive colonic IBD are considered at increased risk for IBD related CRC and they require first surveillance at the time of diagnosis.

Reply 3: The correlation between PSC and UC is stronger than that with Crohn's disease. The occurrence of concurrent PSC in UC patients is reported to be as high as 8%, but this varies bv the extent of the disease. The prevalence is thought to be close to 6% in patients with pancolitis, but 1% in patients with distal colitis.

Changes in the text: As above with reference added.

Comment 4: Line 294: please, include this section:

ARE THE GUIDELINES FOR DYSPLASIA SCREENING IN IBD FOLLOWED? It has been found that adherence to screening programs is usually low even in high-risk patients. Recently, a retrospective Spanish study in which 25 hospitals participated and a total of 1031 patients included, shows that 90% of target patients are included in screening programs, although in the end only 27% follow the guidelines adequately, adherence

much lower than that recommended for CRC screening in the general medium-risk population, 40-45%. (Ballester MP, Mesonero F, Flórez-Diez P, Gómez C, Fuentes-Valenzuela E, Martín N, et al. Adherence to endoscopic surveillance for advanced lesions and colorectal cancer in inflammatory bowel disease: an AEG and GETECCU collaborative cohort study. Aliment Pharmacol Ther. 2022;55:1402-1413.). Furthermore, adherence was even worse in the high CRC risk groups. Patients with adequate follow-up had a greater number of advanced lesions detected earlier than the rest.

Reply 4: Section included

Changes in the text: As above

Comment 5: Line 228: correct the surname Carballal.

- Line 573. Reference 20 is not correct.

- Line 609. Reference is incomplete. Please correct.

- Lines 630-633. Reference 40 is not correct.

- Lines 800-803. Please correct part of the reference "()"

Reply 5: We have modified our text as advised

Changes in the text: As above

Reviewer B

Comment 1: Please provide reference for line 73 and 74 about bile acids and tumour promoting effects

Reply 1: Reference provided

Changes in the text: Added references

Comment 2: Line 139 "Inflamed mucosa without dysplasia undergoes a transition to IND," this is not accurate. Indefinite for dysplasia is simply a descriptive indication the sample cannot be distinguished one way or another usually due to inflammation rather than a transition to LGD.

Reply 2: Thank you for pointing this out.

Changes in the text: Inflamed mucosa can be difficult to distinguish from IND, underscoring the importance of attaining remission prior to surveillance. Indefinite for dysplasia in normal mucosa can subsequently progress to LGD and HGD

Comment 3: Sound discussion of the comparative differences regarding the current guidelines. I would have like to see a bit more discussion on the role of virtual chromoendoscopy and AI and how it compares to standard DCE.

Reply 3: Thank you. We have added more to our discussion.

Changes in the text: El-Dallal et al conducted a meta-analysis that encompassed 11 randomized controlled trials including 1,328 patients and found no statistical difference between virtual chromo when compared to DCE. The study used autofluorescence imaging (AF), FICE, iSCAN, and NBI, with NBI having the largest number of trials. When NBI was compared with DCE and WLE there was no statistical difference per patient and dysplasia

analysis (51). Another study found no significant difference between NBI and DCE for detection of neoplasia, However, it's worth noting that the NBI group experienced a reduction in the average total procedural time by approximately 7 minutes