To the Editor-in-chief
Artificial intelligence in Gastrointestinal endoscopy

At the outset, let me take this opportunity to express my gratitude for considering our article titled – 'Artificial intelligence in endoscopy: More than what meets the eye in screening colonoscopy and endosonographic evaluation of pancreatic lesions' for publication in your esteemed journal. I would also like to thank the reviewers for their valuable comments on the article. We have addressed all the reviewer comments and made appropriate changes in the manuscript (highlighted in the text). In addition, please find below the individual changes made for each of the comments as provided.

Reviewer #1:
Scientific Quality: Grade A (Excellent)
Language Quality: Grade A (Priority publishing)
Conclusion: Minor revision
Specific Comments to Authors:

1. This manuscript describes what is currently possible and what is expected to be possible in the future, citing examples of AI applications in the detection and classification of tumors in gastrointestinal diseases, especially in the colon and bile ducts. The description is detailed and contains a sufficient amount of information. However, the description is not in the realm of a "mini" review. Rather, it should be classified as a "commentary".
    a. We appreciate and thank the reviewer's assessment of the article.
2. The format of the manuscript is as follows: introduction, description of AI technology, application to colorectal examination, and application to bile duct examination. This is good. However, there is no chapter on conclusions. I would like to see a chapter at the end that summarizes this entire manuscript.
    a. A conclusion has been added as suggested
3. There is a list of references, but it is located immediately after the text and is not titled "References. The author's name is listed at the place of citation in Reference 52. This is a grammatical error in the way the references are cited.
    a. The references have been titled and ref 52 has been amended as pointed out

Reviewer #2:
Scientific Quality: Grade C (Good)
Language Quality: Grade C (A great deal of language polishing)
Conclusion: Major revision
Specific Comments to Authors:

1. The introduction section should be seriously improved. More explanations are needed to define the problem, its necessities and the literature review. You should review more papers in terms of multi-objective solution methods. Improve the literature review. Add several pieces of research in 2019 and complete table 1:
    a. We need some clarity on this as there is no Table 1 in the article. In addition, this is a review article on the potential of AI in GI endoscopy with specific focus on CRC screening and EUS evaluation of pancreatic mass/CBD. Each specific problem statement has been added to the specific section. The introduction is only to highlight some

technical terminology of AI, which could provide a better understanding of the article for practicing physicians. Please let us know how we can improve on this structure of the article and literature that is relevant to this discussion. We welcome constructive criticism to improve our manuscript and thank the reviewer for their further suggestions.

2. Moreover, the following references can be used:
   a. Designing a sustainable closed-loop supply chain network of face masks during the COVID-19 pandemic: Pareto-based algorithms. Journal of Cleaner Production, 130056.
   b. Developing a sustainable operational management system using hybrid Shapley value and Multimoora method: case study petrochemical supply chain.
   c. Environment, Development and Sustainability, 1-30. A Covering Tour Approach for Disaster Relief Locating and Routing with Fuzzy Demand. International Journal of Intelligent Transportation Systems Research, 18(1), 140-152.
   d. Sustainable supply chain network design using products' life cycle in the aluminum industry. Environmental Science and Pollution Research, 1-25.
   e. Hybrid artificial intelligence and robust optimization for a multi-objective product portfolio problem Case study: The dairy products industry. Computers & industrial engineering, 137, 106090.
   f. A comprehensive model of demand prediction based on hybrid artificial intelligence and metaheuristic algorithms: A case study in dairy industry. An integrated approach based on artificial intelligence and novel meta-heuristic algorithms to predict demand for dairy products: a case study. Network: Computation in Neural Systems, 1-35.

      i. These references demonstrate the versatile and ever-expanding world of AI methodologies. We would like to appreciate and commend the reviewer's rich knowledge and expertise in this domain. Although these studies discuss different AI methodology, we request some clarity on their application to computer aided diagnosis of endoscopic lesions. We would like to discuss on what the intended implication of these studies would be, especially in the context of the subject in question. We thank the reviewer for providing these references that can inform us on AI methodology. We would like to request that we discuss this further, if possible to understand how we can include these references.

3. Most of the methodological choices lack a clear motivation, and their impact on performance is not analysed on the manuscript. On the whole, there is no clear indication of where the authors see the main innovation and value of the methodology described.
   a. This review highlights the role of AI in GI endoscopy, especially in the area of CRC screening and EUS examination of pancreatic lesions. The role of AI can be envisaged as an adjunct to current systems which can potentially change our approach as clinicians and pave the way for an alternate reality where the CADx system can direct therapeutic options in any patient. Moreover, these systems can be

extremely useful in the community health screening programs especially in mid-income countries like India, where CRC is an emerging cancer and can account for a significant burden of disease in the near future. This has been highlighted in a separate conclusion section. We thank the reviewer for this comment that allowed us to revisit the manuscript in order to highlight the future role of AI in GI endoscopy.

Reviewer #3:
Scientific Quality: Grade C (Good)
Language Quality: Grade B (Minor language polishing)
Conclusion: Minor revision
Specific Comments to Authors: Figure 4 may be revised to indicate what green squares mean more in detail in the legend.

      a. The Figure 4 legend has been amended as suggested.

We would like to thank the reviewers for their valuable suggestions. I hope all the issues raised have been appropriately addressed. Please let us know if there is anything else that is required.
Thank you
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