Reviewer #1:

**Scientific Quality:** Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

**Conclusion:** Accept (High priority)

Specific Comments to Authors: I have no comments to underline

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Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** The study is very interesting and proposes a new methodology for data analysis. I suggest the authors include in the discussion the importance of the study in clinical practice, as CRC is one of the most feared complications among patients with IBD. The authors could also include in the discussion more data on miRNAs associated with CCR in patients with IBD, citing existing studies and even presenting the miRNAs identified in their own study.

Reply: This is a very useful suggestion. We are in agreement with the reviewer and have added a little paragraph in the manuscript approaching those lines. Unfortunately, we could not include miRNAs identities this time since the work we present herein is the computational/numerical part of a much larger clinical project. The optimal miRNAs signatures are being right now in phase of experimental validation in order to file a patent in the next future.

## (1) Science editor:

... Issues raised: (1) The "Author Contributions" section is missing. Please provide the author contributions; (2) The authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s); (3) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022.; (4) PMID numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout; and (5) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text.

## (2) Company editor-in-chief:

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the Artificial Intelligence in Medical Imaging, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". Please provide decomposable Figures (in which all components are movable and editable), organize them into a single PowerPoint file. Please authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022.

Reply: We have followed all the scientific editor and company editor's points in order to fulfil the journal requirements. In particular, we have added "author contributions", "highlights", and PMID/doi identifiers in the manuscript as well as included .pptx and .docx files with the original figures and tables of the work.