

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Clinical Cases

**Manuscript NO:** 68624

**Title:** Deep learning driven colorectal lesion detection in gastrointestinal endoscopic and pathological imaging

**Reviewer's code:** 05759722

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Research Scientist, Teaching Assistant

**Reviewer's Country/Territory:** Malaysia

**Author's Country/Territory:** China

**Manuscript submission date:** 2021-06-15

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-07-04 04:49

**Reviewer performed review:** 2021-07-04 14:55

**Review time:** 10 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## **SPECIFIC COMMENTS TO AUTHORS**

The authors in this work have proposed an interesting review on deep learning to predict colorectal lesions based on image analysis application. The manuscript is well written and however is still need some improvement.

- 1- The organization or structure paragraph at the end of the introduction is missing.
- 2- In Application Principle of Deep Learning section, there are only two sections deep learning origin and development of deep learning in general and CNN. Why only CNN was discussed and reviewed? What about other deep learning methods such as RNN, LSTM, GRU, Bi-LSTM and DCNN.
- 3- Also, in Figure 2, the filed development its focus only on the Origin and development of convolutional neural network and the current progress at the top of your diagram not explained. Please explain what has been done and what is left for further research and what is the research gap that need to be fulfilled. Therefore, if you are only focusing on CNN in this review paper, please consider revising your title or state this clearly on your abstract.
- 4- In table 1, it will be good if the authors list down also the limitations of the pervious studies and the drawback of the deep learning methods used.
- 5- In page 4, section Application of Deep Learning to Image Analysis in the Prediction of Colorectal Lesions, the subsection repeated twice “Computer-aided detection of colonic lesions”. A section before table 1 and other after table 1.
- 6- In table 2, it will be good if the authors list down also the limitations of the previous studies and the drawback of the deep learning methods used.
- 7- Authors must add one section to conclude their study findings and also highlight their current study limitation and their own future research directions.

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Clinical Cases

**Manuscript NO:** 68624

**Title:** Deep learning driven colorectal lesion detection in gastrointestinal endoscopic and pathological imaging

**Reviewer's code:** 05872335

**Position:** Editorial Board

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**Reviewer's Country/Territory:** Pakistan

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<b>Peer-reviewer statements</b>	Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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#### **SPECIFIC COMMENTS TO AUTHORS**

This is a good review paper to lay foundation of future deep learning application to predict, diagnose and treat colorectal lesions using future technology.