

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 62088

Title: Cost-effective screening using a two-antibody panel for detecting mismatch repair deficiency in sporadic colorectal cancer

Reviewer's code: 05322119

Position: Peer Reviewer

Academic degree: FACS, MD

Professional title: Surgical Oncologist

Reviewer's Country/Territory: Peru

Author's Country/Territory: South Korea

Manuscript submission date: 2020-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-16 16:07

Reviewer performed review: 2021-04-16 17:16

Review time: 1 Hour

Scientific quality	<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 Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<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
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

I would like to thank the opportunity to review the present paper. This study has an important cohort from a single centre. The information presented is of great importance for centres where the cost of diagnostic procedures could have an impact in health care systems or in countries where different systems may coexist. I have some questions:

- 1.- The authors state that the objective of the paper is to evaluate the accuracy and cost benefit of the two-antibody panel of IHC for detecting MMR deficiency. I have read the cost of each individual test but not the clinical benefit obtained from this approach compared to the MSI test on the cohort studied. Also, the evaluation of sensitivity and specificity is not an evaluation of accuracy.
- 2.- The definition of rectum should be revisited: "...from the rectosigmoid junction to the rectum"
- 3.- I would recommend to change the term "histology" to a more accurate as "Differentiation grade"

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 62088

Title: Cost-effective screening using a two-antibody panel for detecting mismatch repair deficiency in sporadic colorectal cancer

Reviewer's code: 05772642

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Italy

Author's Country/Territory: South Korea

Manuscript submission date: 2020-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-16 07:27

Reviewer performed review: 2021-04-18 11:17

Review time: 2 Days and 3 Hours

Scientific quality	<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
Language quality	<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
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

The microsatellite instability (MSI) or immunohistochemistry (ICH) are two tests used in DNA mismatch repairing (MMR) screening in colorectal cancer. The authors in this original paper compare sensitivity, specificity, and cost-effectiveness of two-four antibody immunohistochemical panel considering the MSI test as a reference point. The results of the study are encouraging, showing that the sensitivity of a two Ab-panel is only slightly lower than that of Four ab-panel for half the price. Although methods, statistical analysis and data research seem to be well structured, the central argument of the paper could be off-topic with respect to the objectives of the journal. The title should be less generic and at least partially hint at the conclusion of the analysis. In the introduction the authors assert that “several studies have compared four- and two-antibody panels in term of accuracy and cost-effectiveness” but the reference is only one. Some typos in the text are present (splenic flexion splenic flexure??) The study is well conceived and with a practical application of saving. However, its validity is greatly influenced by too conspicuous variability between the different local health systems policies and by the price variability of immunohistochemistry tests in the various countries. A multicenter analysis involving in different countries would be more appropriate for the study in question.

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 62088

Title: Cost-effective screening using a two-antibody panel for detecting mismatch repair deficiency in sporadic colorectal cancer

Reviewer's code: 03647881

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Associate Professor, Attending Doctor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: South Korea

Manuscript submission date: 2020-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-16 23:33

Reviewer performed review: 2021-04-21 23:38

Review time: 5 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<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
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	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

No comments.

PEER-REVIEW REPORT

Name of journal: World Journal of Clinical Cases

Manuscript NO: 62088

Title: Cost-effective screening using a two-antibody panel for detecting mismatch repair deficiency in sporadic colorectal cancer

Reviewer's code: 05397187

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

Manuscript submission date: 2020-12-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-04-22 05:15

Reviewer performed review: 2021-04-22 05:52

Review time: 1 Hour

Scientific quality	<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
Language quality	<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
Conclusion	<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
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	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

This paper compared two- and four-antibody panels of MSI testing in CRC. Usually, MSI testing is performed using NCI-5 Bethesda panel. The authors found a two-antibody panel of PMS2/MSH6 might be the best choice in terms of cost-effectiveness and accuracy. The costs of the MSI test and two-antibody panels of IHC were \$200 and \$80. However, as a cost-effective screening tool, does the positive /negative patients still need four-antibody panels or NCI-5 Bethesda panel? Then the overall cost will be different? If not, the authors did not demonstrate / discuss about the prognostic value and predicting response to chemotherapy of this two-antibody panel.