

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 74121

Title: Flap Failure Prediction in Microvascular Tissue Reconstruction using Machine Learning Algorithms

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06074976

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2021-12-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-12-19 12:07

Reviewer performed review: 2022-01-02 10:36

Review time: 13 Days and 22 Hours

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 Grade E: Do not publish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 type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



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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

Despite the rare occurrence of flap failure, it can result in devastating consequences for patients, such as permanent scarring of the face and breast. Moreover, it increases complication in postoperative care, length of hospital stays, financial burden, and mental stress to the patients. Therefore, it is important to identify the relevant factors and screen out high-risk patients before surgery, which might result in flap failure. This manuscript developed a machine learning-based predictive model for the flap failure for identify the potential factors and screen out high-risk patients. The manuscript is very well written. The results are very interesting. The data are discussed with updated references. Only a minor editing is required.

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Title: Flap Failure Prediction in Microvascular Tissue Reconstruction using Machine Learning Algorithms

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06074986

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Italy

Author's Country/Territory: China

Manuscript submission date: 2021-12-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-12-19 12:06

Reviewer performed review: 2022-01-02 10:38

Review time: 13 Days and 22 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
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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

This is an interesting study about the flap failure prediction in microvascular tissue reconstruction using machine learning algorithm. The study is very well designed, and the results are well display. The reviewer recommends to accept this manuscript after a minor editing.

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Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05738088

Position: Editorial Board

Academic degree: MSc, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: India

Author's Country/Territory: China

Manuscript submission date: 2021-12-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-02 03:57

Reviewer performed review: 2022-01-03 06:16

Review time: 1 Day and 2 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 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



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SPECIFIC COMMENTS TO AUTHORS

1.Please check all machine learning algorithm applied and best results of random forest taken? 2.Please compare and contrast the results with existing methods and proposed method. 3.Check the quality of figures it should be in HD and standard format. 4.Please mention the formula and how the calculation done? Sensitivity, specificity (Figure 1A,B in Appendix). 5.How machine leaning techniques applied? methods and procedures need to be shown in the manuscript. 6.Comapre and justify your results are best with existing method