



PEER-REVIEW REPORT

Name of journal: *World Journal of Radiology*

Manuscript NO: 112271

Title: Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas: A Narrative Review

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 08564473

Position: Peer Reviewer

Academic degree and professional title: Additional Professor

Reviewer's Country/Territory: China

Author's Country/Territory: China

Manuscript submission date: 2025-07-22

Reviewer chosen by: AI Editor

Reviewer accepted review: 2025-07-28 10:38

Reviewer performed review: 2025-07-30 10:21

Review time: 1 Day and 23 Hours

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? Yes Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes Are the Key Words complete? Yes
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Is the content of the Introduction adequate? **Yes**

Is the content of the Materials and Methods complete?

Yes

Is the description of the experiments clear and complete? **Yes**

Are the experimental data presented in the manuscript's biostatistics content reliable? **Yes**

Are the experimental data of the Results true and reliable? **Yes**

Are the quality and resolution of the images up to standard? **Yes**

Do the selection and design of the figures and tables follow the principles of necessity and clarity? **Yes**

Is there any duplication between various parts of the manuscript and between the main text and the content presented in the figures and tables? **Yes**

Are the figures and tables numbered consecutively in the order in which they appear in the manuscript? **Yes**

Is the content of the Discussion reasonable? **Yes**

Is the Conclusion reasonable? **Yes**

Are all references necessary and reasonable? **Yes**

Do authors omit important references? **No**

Are all references related to the topic of the manuscript? **Yes**

Do authors only cite their own earlier publications? **Yes**

Is the manuscript's text correct, concise, and clear? **Yes**

Will the manuscript's content be of interest to readers?
Yes

Are additional experiments needed for the study? **Yes**

Does the research scope comply with ethics? **Not**



	Applicable
Scientific quality	Grade A (Excellent)
Novelty of this manuscript	Grade A (Excellent)
Creativity or innovation of this manuscript	Grade A (Excellent)
Scientific significance of the conclusion in this manuscript	Grade A (Excellent)
Language quality	Grade A (Excellent)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	Yes
Does this manuscript report an unconventional innovation?	Yes
Conclusion	Accept
Re-review	Yes
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No
Are your review comments generated by AI tools?	No

SPECIFIC COMMENTS TO AUTHORS

Title: Diffusion-Weighted Imaging of the Pancreas: Clinical Applications and Research Advances

Manuscript No.: 112271

In clinical diagnostics, CT, MRI, and ultrasound are routinely employed. Notably, MRI has advanced rapidly: compared with ultrasound it offers superior objectivity, and relative to CT it provides better soft tissue contrast without ionizing radiation. Its



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diagnostic performance for pancreatic cancer rivals that of contrast-enhanced CT, making MRI an increasingly preferred imaging modality.

MRI plays a pivotal role in the diagnosis of pancreatic diseases. Advances in artificial intelligence have markedly accelerated scan times, while quantitative MRI techniques—particularly diffusion-weighted imaging (DWI) and derived apparent diffusion coefficient (ADC) maps have become indispensable in clinical decision-making. In this article, authors review the acquisition parameters, postprocessing techniques, and quantitative methods utilized in pancreatic DWI. Various postprocessing models, including monoexponential, biexponential, stretched exponential and non-Gaussian kurtosis models, as well as deep learning networks, have been used to assess their clinical utility in diagnosing pancreatic diseases. This review offers a comprehensive overview of DWI principles, clinical sequences, postprocessing models, and the expanding role of AI in disease characterization. It is both well-focused and highly informative, making it an excellent candidate for publication in the World Journal of Radiology.

In clinical DWI practice, the quantitative ADC is the most robust parameter, yet it still confronts reproducibility and repeatability challenges—issues that are thoughtfully discussed in this review and thus broaden the reader's perspective. The review reports the repeatability threshold for ADC of normal pancreas is 37% for test-retest scans, while the repeatability threshold for pancreatic tumors needs to be further investigated. Moreover, when AI models are applied to disease diagnosis, ADC values though influenced by acquisition parameters—are less sensitive to field-strength variations than the signal intensities of conventional T1- or T2-weighted images. We therefore anticipate that future research integrating quantitative MRI with AI will yield even greater diagnostic performance. This review not only summarizes the current applications of DWI in pancreatic diseases but also critically examines its limitations and future



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directions. Overall, it is an excellent and well-rounded review.



PEER-REVIEW REPORT

Name of journal: *World Journal of Radiology*

Manuscript NO: 112271

Title: Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas: A Narrative Review

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05237581

Position: Peer Reviewer

Academic degree and professional title: Assistant Professor, MD

Reviewer's Country/Territory: India

Author's Country/Territory: China

Manuscript submission date: 2025-07-22

Reviewer chosen by: Jia-Lin Zhang

Reviewer accepted review: 2025-07-29 08:52

Reviewer performed review: 2025-08-04 00:35

Review time: 5 Days and 15 Hours

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? No Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes Are the Key Words complete? Yes
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Is the content of the Introduction adequate? **Yes**

Is the content of the Materials and Methods complete?

Yes

Is the description of the experiments clear and complete? **Yes**

Are the experimental data presented in the manuscript's biostatistics content reliable? **Yes**

Are the experimental data of the Results true and reliable? **Yes**

Are the quality and resolution of the images up to standard? **Not Applicable**

Do the selection and design of the figures and tables follow the principles of necessity and clarity? **Not Applicable**

Is there any duplication between various parts of the manuscript and between the main text and the content presented in the figures and tables? **Not Applicable**

Are the figures and tables numbered consecutively in the order in which they appear in the manuscript? **Not Applicable**

Is the content of the Discussion reasonable? **Yes**

Is the Conclusion reasonable? **Yes**

Are all references necessary and reasonable? **Yes**

Do authors omit important references? **No**

Are all references related to the topic of the manuscript? **Yes**

Do authors only cite their own earlier publications? **No**

Is the manuscript's text correct, concise, and clear? **Yes**

Will the manuscript's content be of interest to readers?
Yes



	Are additional experiments needed for the study? No Does the research scope comply with ethics? Yes
Scientific quality	Grade B (Very good)
Novelty of this manuscript	Grade B (Very Good)
Creativity or innovation of this manuscript	Grade B (Very Good)
Scientific significance of the conclusion in this manuscript	Grade B (Very Good)
Language quality	Grade B (Very good)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	No
Does this manuscript report an unconventional innovation?	No
Conclusion	Minor revision
Re-review	Yes
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No
Are your review comments generated by AI tools?	No

SPECIFIC COMMENTS TO AUTHORS

I have conducted a thorough review of the review manuscript titled "Diffusion-Weighted Imaging of the Pancreas: Clinical Applications and Research Advances". The manuscript provides an overview of the principles, current clinical applications, and recent research progress in diffusion-weighted imaging (DWI) for pancreatic diseases. It covers the role of DWI imaging in pancreatic tumours, evaluating



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severity, treatment response and prognosis. **STRENGTH:** 1. Clinically Relevant Topic: The utilisation of DWI is increasing widely in abdominal imaging, and its application in pancreatic diseases needs an hour. 2. Coverage of the topic and structural organization of the manuscript: The review comprehensively covered the technical part, clinical part, and research segment, also with structural organization, which will be helpful for the reader to understand better. **WEAKNESS:** 1. Lack or little description regarding the most recent meta-analysis and guidelines, such as ESGAR recommendations for DWI in pancreatic evaluation. 2. Pitfalls of pancreatic DWI are described minimally. 3. Insufficient flow or recommendation to use in clinical practice, which is required to make a clinically impact. 4. Lack of figures: pictorial representation of various clinical conditions of pancreatic disorders in comparison with the routine imaging technique will be helpful for the reader to understand better. **Recommendation to strengthen the article:** 1. Add the most recent systematic review /meta-analysis and recommendations from the association guidelines on clinical use of DWI in pancreatic diseases. 2. Discuss in detail about the various limitations and biases involved in the DWI in pancreatic diseases. 3. Provide a practical algorithm flow chart or summary table to guide the clinician “when and how to use the DWI in pancreatic disorders”. 4. If possible, include the DWI images of various pancreatic conditions for better understanding. Addressing the weaknesses and recommendations outlined above would significantly enhance the manuscript's contribution to the field of DWI in pancreatic diseases. **Conflict of Interest:** The reviewer declares no conflict of interest.



PEER-REVIEW REPORT

Name of journal: *World Journal of Radiology*

Manuscript NO: 112271

Title: Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas: A Narrative Review

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02446526

Position: Associate Editor

Academic degree and professional title: FRCP, MD, MRCP, Professor, Senior Researcher

Reviewer's Country/Territory: United Kingdom

Author's Country/Territory: China

Manuscript submission date: 2025-07-22

Reviewer chosen by: Jia-Lin Zhang

Reviewer accepted review: 2025-07-30 15:09

Reviewer performed review: 2025-08-05 09:11

Review time: 5 Days and 18 Hours

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? No Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes
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Are the Key Words complete? **Yes**

Is the content of the Introduction adequate? **Yes**

Is the content of the Materials and Methods complete?

Not Applicable

Is the description of the experiments clear and complete? **Not Applicable**

Are the experimental data presented in the manuscript's biostatistics content reliable? **Not Applicable**

Are the experimental data of the Results true and reliable? **Not Applicable**

Are the quality and resolution of the images up to standard? **No**

Do the selection and design of the figures and tables follow the principles of necessity and clarity? **Not Applicable**

Is there any duplication between various parts of the manuscript and between the main text and the content presented in the figures and tables? **Not Applicable**

Are the figures and tables numbered consecutively in the order in which they appear in the manuscript? **Not Applicable**

Is the content of the Discussion reasonable? **No**

Is the Conclusion reasonable? **Not Applicable**

Are all references necessary and reasonable? **Yes**

Do authors omit important references? **No**

Are all references related to the topic of the manuscript? **Yes**

Do authors only cite their own earlier publications? **No**

Is the manuscript's text correct, concise, and clear? **No**



	Will the manuscript's content be of interest to readers? Yes Are additional experiments needed for the study? No Does the research scope comply with ethics? Not Applicable
Scientific quality	Grade C (Good)
Novelty of this manuscript	Grade C (Good)
Creativity or innovation of this manuscript	Grade C (Good)
Scientific significance of the conclusion in this manuscript	Grade C (Good)
Language quality	Grade C (Good)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	No
Does this manuscript report an unconventional innovation?	No
Conclusion	Major revision
Re-review	Yes
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No
Are your review comments generated by AI tools?	No

SPECIFIC COMMENTS TO AUTHORS

The narrative review summarises the clinical applicability of Diffusion-Weighted Magnetic Resonance Imaging in pancreatic disorders. Authors have collected reasonable



evidence for the topic of discussion through literature search, analysis of recent data from the web and tried to correlate with our current understanding on this topic to reinforce and advance knowledge gaps.

However, there are several issues in the paper in the present form which need rectification to improve the quality and enhance readability.

General comments: The language and structure needs improvement as there are occasional grammar and syntax errors (e.g., "Therefore, several other improved techniques have been used in clinical, including readout-segmented EPI (rs-EPI) DWI [2] and reduced field-of-view (rFOV) DWI" - what clinical?) throughout the paper.

Title: should have been "Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas: Clinical Applications and Research Advances".

Abstract: Better to add one or two sentences on how AI-based evolving technology is going to transform future pancreatic imaging.

Main text: Should have been more structured with tables, figures, algorithms/flow charts and possibly some images as examples to enhance readability and interpretability of the paper.

It would be worthy to add a paragraph in the introduction section elaborating how the authors compiled evidence for their narrative review such as the types of databases searched, the key word used for the acquisition of data and types of articles used for gathering the most relevant evidence from the web. This will enhance the transparency of the evidence collected for readers of the paper and can potentially improve the citation rates and impact of the paper.

I didn't quite understand the reason for a title discussion as this is a narrative review with evidence compiled from various articles rather than elaborating findings from a research study of systematic review.

References: formatting is not as per the standards of BPG journals. authors are



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recommended to review the submission guidelines.

Overall, this paper needs a lot of work to improve the quality and significance for the global audience of the Journal.



RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Radiology*

Manuscript NO: 112271

Title: Diffusion-Weighted Magnetic Resonance Imaging of the Pancreas: A Narrative Review

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05237581

Position: Peer Reviewer

Academic degree and professional title: Assistant Professor, MD

Reviewer's Country/Territory: India

Author's Country/Territory: China

Manuscript submission date: 2025-07-22

Reviewer chosen by: Xin-Liang Qu

Reviewer accepted review: 2025-08-28 03:54

Reviewer performed review: 2025-08-28 05:44

Review time: 1 Hour

Content to be reviewed	Does the manuscript's content fall within the scope of the journal? Yes Is there any Key Word that is not included in the manuscript title? No Do authors' affiliations correspond to the content of the manuscript? Yes Does the Abstract contain the contents of each part of the manuscript (IMRaD)? Yes Are the Key Words complete? Yes
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Is the content of the Introduction adequate? **Yes**

Is the content of the Materials and Methods complete?

Not Applicable

Is the description of the experiments clear and complete? **Yes**

Are the experimental data presented in the manuscript's biostatistics content reliable? **Not Applicable**

Are the experimental data of the Results true and reliable? **Yes**

Are the quality and resolution of the images up to standard? **Yes**

Do the selection and design of the figures and tables follow the principles of necessity and clarity? **Yes**

Is there any duplication between various parts of the manuscript and between the main text and the content presented in the figures and tables? **No**

Are the figures and tables numbered consecutively in the order in which they appear in the manuscript? **Yes**

Is the content of the Discussion reasonable? **Yes**

Is the Conclusion reasonable? **Yes**

Are all references necessary and reasonable? **Yes**

Do authors omit important references? **No**

Are all references related to the topic of the manuscript? **Yes**

Do authors only cite their own earlier publications? **No**

Is the manuscript's text correct, concise, and clear? **Yes**

Will the manuscript's content be of interest to readers? **Yes**

Are additional experiments needed for the study? **No**



	Does the research scope comply with ethics? Yes
Scientific quality	Grade B (Very good)
Novelty of this manuscript	Grade A (Excellent)
Creativity or innovation of this manuscript	Grade B (Very Good)
Scientific significance of the conclusion in this manuscript	Grade B (Very Good)
Language quality	Grade B (Very good)
Does this manuscript describe a study of the existing knowledge system?	Yes
Does this manuscript report a revolutionary innovation?	No
Does this manuscript report an unconventional innovation?	No
Conclusion	Accept
Peer-reviewer statements	Peer-Review: Anonymous
	Conflicts-of-Interest: No
Are your review comments generated by AI tools?	No

SPECIFIC COMMENTS TO AUTHORS

The authors have addressed the queries I raised earlier. The manuscript is now in the format of a journal publication.