

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 02444715

Reviewer's country: Egypt

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-06

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input checked="" type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

The review paper : Balance control during gait initiation is well written in a comprehensive way and clear but for an orthopaedic surgeon , I think it will need more illustrations starting from basic knowledge , to make the reader understand it with less effort

REPLY TO THE REVIEWER

Thank you for your comments.

In order to make the highly complex topic of balance control more comprehensive to non-experts in the field, a summary of the main points is now added at the end of each paragraph. In addition, three new illustrations are added in the manuscript and the definition of some basic notions used throughout the manuscript (e.g. base of support, center of pressure, center of mass, gait initiation) is provided. Finally, the importance of investigating balance control mechanisms in the orthopedics field is better stressed in the Introduction (please note that this manuscript is the continuation of a previous review



BAISHIDENG PUBLISHING GROUP INC

7901 Stoneridge Drive, Suite 501, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com

<http://www.wjgnet.com>

focusing on a similar topic and published in the same journal, cf. Yiou E., Caderby T and Hussein T, 2012, World J Orthopedics). We hope that the reviewer will find that these additions will make the paper easier to read.

Reference

Yiou E, Caderby T, Hussein T. (2012). Adaptability of anticipatory postural adjustments associated with voluntary movement. World J Orthop. 2012 Jun 18;3(6):75-86. doi: 10.5312/wjo.v3.i6.75.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 00505859

Reviewer's country: United States

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-07

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

Only a few grammatical corrections needed: 1. Abstract, 13th line, place "delineation" or "analysis" after "state-of-the-art" 2. Page 6, 5th line from bottom of paragraph, replace "important" with "significant"

REPLY TO THE REVIEWER

Thank you for your comments. The required grammatical corrections were made.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 02705018

Reviewer's country: Greece

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-08

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

Although this submitted manuscript deals with an interesting topic, is written with a comprehensive style and inevitably its complex clinical meaning is difficult to be clearly understood by a non expert in this field Orthopaedic Surgeon. For this reason I beleive that it should be rewritten in a simpler way in order to be appropriate for publication in this journal.

REPLY TO THE REVIEWER

Thank you for your comments.

In order to make the highly complex topic of balance control more comprehensive to non-experts in the field, a summary of the main points is now added at the end of each paragraph. In addition, three new illustrations are added in the manuscript and the definition of some basic notions used throughout the manuscript (e.g. base of support, center of pressure, center of mass, gait initiation) is provided. Finally, the importance of investigating balance control mechanisms in the orthopedics field is better stressed in the



BAISHIDENG PUBLISHING GROUP INC

7901 Stoneridge Drive, Suite 501, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com

<http://www.wjgnet.com>

Introduction (please note that this manuscript is the continuation of a previous review focusing on a similar topic and published in the same journal, cf. Yiou E., Caderby T and Hussein T, 2012, World J Orthopedics). We hope that the reviewer will find that these additions will make the paper easier to read.

Reference

Yiou E, Caderby T, Hussein T. (2012). Adaptability of anticipatory postural adjustments associated with voluntary movement. World J Orthop. 2012 Jun 18;3(6):75-86. doi: 10.5312/wjo.v3.i6.75.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 02703298

Reviewer's country: Turkey

Science editor: Fang-Fang Ji

Date sent for review: 2017-06-27

Date reviewed: 2017-07-10

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

I criticised the manuscript entitled "Balance control during gait initiation: state-of-the-art and research perspectives ". My review conclusion is as follows: The article is original and does provide significant and also detailed information about the balance control during gait initiation. Moreover, the grammar is excellent, so it easy to follow manuscript section. The narrative review was performed well. In view of the methodology, I did not provide additional specific comments.

REPLY TO THE REVIEWER

Thank you for your positive comments on our manuscript.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 02281177

Reviewer's country: China

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-12

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input checked="" type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

This is an interesting article. Balance control needs to integrate multiple sensory system information in CNS mainly including vestibular, visual, and proprioceptive inputs. Please authors add these.

REPLY TO THE REVIEWER

Thank you for your positive comments on our manuscript. The precisions on the sensory information required to control balance are now evoked in the manuscript (cf Page 5 line 8-12). However, please note that the present manuscript did not focus on the sensory inputs required to control balance during gait initiation, but rather to provide a state-of-the-art on the different motor mechanisms available to participants to ensure stabilization. We therefore not wish to extend the neurophysiological aspect of balance control in the present manuscript but rather its biomechanical aspect.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 03069301

Reviewer's country: Spain

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-12

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

The authors present a very interesting paper by combining an update together with future directions for research. Unfortunately gait analysis, being a very important issue, receive little attention by orthopedic surgeons. That is particularly troublesome for understanding, by the way, the pathogenesis of hip fractures by those treating this very frequent traumatic disease. As the authors write in their paper, gait abnormalities are essential for hip fracture to happen, as well as some other skeletal traumatism. They have published many original papers on this subject and have expertise enough to appreciate why from time to time is good to produce a comprehensive publication.

REPLY TO THE REVIEWER

Thank you for your positive comments on our manuscript. We do agree with the reviewer that *"gait analysis, being a very important issue, received little attention by orthopedic surgeons. That is particularly troublesome for understanding, by the way, the pathogenesis of hip fractures by those treating this very frequent traumatic disease."* This point was added Page 5



BAISHIDENG PUBLISHING GROUP INC

7901 Stoneridge Drive, Suite 501, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com

<http://www.wjgnet.com>

line 14-17 to further stress the importance of studying balance control in gait initiation for the orthopaedic field.

PEER-REVIEW REPORT

Name of journal: World Journal of Orthopedics

Manuscript NO: 35002

Title: Balance control during gait initiation: state-of-the-art and research perspectives

Reviewer's code: 02691156

Reviewer's country: Greece

Science editor: Fang-Fang Ji

Date sent for review: 2017-07-06

Date reviewed: 2017-07-13

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input type="checkbox"/> No	

COMMENTS TO AUTHORS

The submitted minireview manuscript proposes a state-of-the-art on (1) the balance control mechanisms in play during gait initiation in able bodied subjects and in the case of some frail populations and (2) the biomechanical parameters used in the literature to quantify dynamic stability. The title is referring directly to the problem at hand and the abstract unstructured, represent a synopsis of the main points of the present manuscript. Key words: are adequate. Introduction is clear and focuses on (1) the balance control mechanism in able subjects and in some frail populations and on (2) the biomechanical parameters used to quantify dynamic stability during gait initiation. Instead of Materials and Methods a number of subchapters are included with a detailed scientific analysis and discussion on the latest knowledge on the subject. Results are omitted and instead of Conclusions Concluding remarks are included emphasizing that "advances the viewpoint that dynamic stability during gait initiation (as measured with the margin of stability) may share a similar principle of functional regulation" and that further research is needed to support their proposals. References are including 101 published

papers to support authors' views, but without inclusion criteria. The submitted manuscript is a minireview aiming to provide readers with the latest knowledge and to help improve their diagnostic and therapeutic skills. In its present form, although possess valuable scientific information, is rather confusing the readers, who are falling within the various parameters of gait cycle, which are explained in details, but the manuscript, in the submitted form, diverge from AMRAD structure, needs to be reorganized in a better and clear way, for the common reader, before been accepted for publication.

REPLY TO THE REVIEWER

Thank you for your comments on our manuscript.

We were not clear with the comment of the reviewer that the manuscript in its present form, *"is rather confusing the readers, who are falling within the various parameters of gait cycle, which are explained in details, but the manuscript, in the submitted form, diverge from AMRAD structure"*.

Indeed, this review did not focus on the *"various parameters of the gait cycle"* but rather on the different balance control mechanisms into play during gait initiation. We aimed to synthetize in detail these mechanisms, which were investigated in separate papers in the literature, and discuss the possible interactions between. This goal is now better justified in the Introduction (cf. the added text in this section). In addition, in order to make the highly complex topic of balance control more comprehensive to non-experts in the field, a summary of the main points is now added at the end of each paragraph. Three new illustrations are also added in the manuscript and the definition of some basic notions used throughout the manuscript (e.g. Base of support, center of pressure, center of mass, gait initiation) is also provided. We hope that the reviewer will find that these additions will make the paper less confusing.

The reviewer also suggested that the manuscript should to be reorganized according to the *"AMRAD structure"*. We understand that the reviewer refers here to the *"IMRaD structure"* (i.e. Introduction, Methods, Results, and Discussion) for reporting original data in basic articles. We obviously agree that the IMRaD structure is classical to such articles. However, please note that the present manuscript is not a basic article but a mini-review article. It was therefore structured according to the guidelines of the journal for such submissions (cf. paragraph 1.14 page 6 of the guidelines for the main text of mini-review), i.e. it included an introduction (where the justification and the goals of the paper are stated), followed by a literature report combined with a discussion, and then by concluding remarks. This structure is commonly used in narrative literature review articles such as the present one. Please see, for example, our previous review published in the same journal (cf. Yiou E., Caderby T. Hussein T, 2012, World Journal of

Orthopaedics).

The reviewer also questioned about the inclusion criteria for the present review. We wish to emphasize that narrative literature review articles are publications that describe and discuss the state of the science of a specific topic or theme from a theoretical and contextual point of view. In contrast to systematic review articles, narrative review articles do not list the types of databases and methodological approaches used to conduct the review nor the evaluation criteria for inclusion of retrieved articles during databases search (Bernardo et al., 2004). Narrative review instead consists of critical analysis of the literature published in books and electronic or paper-based journal articles. Such review articles have an important role in continuing education because they provide readers with up-to-date knowledge about a specific topic or theme (Rother, 2007).

We hope that with the additional figures and the clarifications of several aspects of the text (cf. the added text with tracked changes and additional figures), the reviewer will find the review easier to read.

References

Bernardo WM, Nobre MRC, Jatene FB (2004). Evidence based clinical practice. Part II - searching evidence databases. *Rev. Assoc. Med. Bras.* 50 (1): 104-108.

Rother E (2007). Systematic literature review X narrative review. *Acta Paul. Enferm.* 20 (2). 15.

Yiou E, Caderby T, Hussein T. (2012). Adaptability of anticipatory postural adjustments associated with voluntary movement. *World J Orthop.* 2012 Jun 18;3(6):75-86. doi: 10.5312/wjo.v3.i6.75.