

PEER-REVIEW REPORT

Name of journal: World Journal of Hematology

Manuscript NO: 32446

Title: Oxidative alterations in sickle cell disease: Possible involvement in disease pathogenesis

Reviewer's code: 00503182

Reviewer's country: Egypt

Science editor: Fang-Fang Ji

Date sent for review: 2017-01-12

Date reviewed: 2017-01-21

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 checked="" type="checkbox"/> Grade B: Very good	<input checked="" 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"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input 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 checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

Although the review article looks to be structured and worth for publication yet there many references can be deleted with its contents and there are some essential statements all through the review need to be referenced

PEER-REVIEW REPORT

Name of journal: World Journal of Hematology

Manuscript NO: 32446

Title: Oxidative alterations in sickle cell disease: Possible involvement in disease pathogenesis

Reviewer's code: 02444989

Reviewer's country: Spain

Science editor: Fang-Fang Ji

Date sent for review: 2017-01-12

Date reviewed: 2017-01-31

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		[Y] No	<input checked="" type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

This review discuss the oxidative stress status in SCD and its relationship with the pathophysiology of the disease. The author described anemia, vaso-occlusion and chronic inflammation, as the main features related to the presence of a high autoxidation of HbS and high oxidative stress, which results in the oxidation of lipid molecules and proteins. Although these factors are of importance to understand the disease, there are other points that should be addressed: 1) Other factors influence on clinical variability and the pathogenesis of SCD should be addressed in more detail: endothelial dysfunction, related to decreased bioavailability of NO and long periods of ischemia/reperfusion that generate xanthine oxidase from xanthine dehydrogenase. These conditions led to increased asymmetric dimethylarginine which also, in addition to high oxidation of HbS, influence the formation of free radicals. 2) The authors should explain in more detail the role of lipid peroxidation in the disease. 3) When speaking about lipidic products of oxidation, it is necessary to mention something about

the relationship between apolipoprotein dysregulation and increased platelet adhesion. For example, the relation between apoA-1 and activation of eNOS (Soupene et al. *Expt Biol Med* 2016; 241:1933-1942). 4) The authors affirm: "There are many oxidative markers being studied in SCD". But almost did not describe them. Also, for a relationship between oxidative markers and clinical variability of the disease, check paper of Rusanova et al. *Eur J Haematol* 2010; 85:529-537. 5) The authors should update the references: most of them are from many years ago, and there are no recent ones.

PEER-REVIEW REPORT

Name of journal: World Journal of Hematology

Manuscript NO: 32446

Title: Oxidative alterations in sickle cell disease: Possible involvement in disease pathogenesis

Reviewer's code: 01021691

Reviewer's country: Germany

Science editor: Fang-Fang Ji

Date sent for review: 2017-01-12

Date reviewed: 2017-02-07

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 checked="" 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 checked="" type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		[Y] No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

This is an interesting review. However, the authors should discuss in more detail about new therapies targeting oxidative alterations in sickle cell disease. In addition, it would be better if the authors can add some figures to demonstrate the major issues they wish to address.