

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**ESPS manuscript NO:** 23839

**Title:** Serum KatA and AhpC antibodies of Helicobacter pylori as novel biomarkers for gastric cancer

**Reviewer's code:** 00039368

**Reviewer's country:** Estonia

**Science editor:** Ya-Juan Ma

**Date sent for review:** 2015-12-25 09:22

**Date reviewed:** 2016-01-07 17:44

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 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 checked="" 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 checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This well done and written hospital-based case-control study considers the investigation of possible use of evaluation of antibodies to catalase (KatA) and alkyl hydroperoxide reductase (AhpC) of H. pylori as biomarkers for gastric cancer. The study was performed in 232 gastric cancer patients and 264 controls subjects using indirect ELISA for detection of aforementioned antibodies in sera. The main finding of the study was that KatA and AhpC antibodies are associated with gastric cancer risk and Kat A may serve as a novel biomarker for gastric cancer screening. Introduction gives a sufficient overview of the study background and the authors raised clearly the aim of the study. The Tables and Figure give a sufficient overview about the results. This study make a contribution to studies of better understanding the mechanisms of carcinogenesis and evaluation the possible non-invasive diagnostic markers of gastric cancer patients. However, the following point needs to be considered: 1. It would be useful to compare the presence and the level of KatA and AhpC antibodies also in patients with gastric ulcer and/or with chronic atrophic gastritis caused by H. pylori. 2. How the authors do explanation of relatively high frequency of KatA seropositivity



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(70.79%) in gastric cancer patients in H. pylori negative subjects? It should be discussed a possibility of some cross-reactivity, especially taken into account the very high serum dilution used in ELISA (1:32000).

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**Name of journal:** World Journal of Gastroenterology

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**Title:** Serum KatA and AhpC antibodies of Helicobacter pylori as novel biomarkers for gastric cancer

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<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 checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		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

The authors investigated catalase (KatA), alkyl hydroperoxidase reductase (AhpC) antibodies of Helicobacter pylori (H.pylori) as biomarkers for gastric cancer (GC). They concluded that serum KatA and AhpC antibodies are associated with GC risk and KatA may serve as a biomarker for GC. KatA/FlaA combined analysis improved screening accuracy. This study was well designed and considered to contribute to early detection of GC. I have some comments as bellow. #1. The authors should add the results of KatA/ AhpC combined analysis to Table1. #2. KatA and AhpC were antibodies of H.Pylori. But why there were 21 KatA positive cases and 43 AhpC positive cases even in the control of H.pylori negative cases? #3. There is no description of stage of GC in this article. So the effectiveness of KatA and AhpC for early detection of GC is not able to evaluate. #4. The authors should describe about positivity of KatA and AhpC on cardia GC. #5. If possible, the authors had better to investigate the expression of KatA and AhpC on the GC tissues immunohistochemically.