



PEER-REVIEW REPORT

Name of journal: World Journal of Gastrointestinal Endoscopy

Manuscript NO: 50142

Title: Usefulness of serum lipase for early diagnosis of post-endoscopic retrograde cholangiopancreatography pancreatitis

Reviewer’s code: 03257846

Reviewer’s country: Denmark

Science editor: Jin-Zhou Tang

Reviewer accepted review: 2019-07-15 08:04

Reviewer performed review: 2019-07-15 10:43

Review time: 2 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer’s expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Review of: Tadehara et. Al: "Usefulness of serum lipase for early diagnosis of post-endoscopic retrograde cholangiopancreatography pancreatitis" The study evaluates the usefulness of serum lipase as compared to serum amylase for the early



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identification of post-ERCP pancreatitis. The study is a retrospective cohort study including 804 ERCP-patients from two Japanese hospitals over a period of five years. The topic is relevant, but certain limitation of the study needs to be addressed. Major comments: The study uses the Cotton consensus criteria for evaluation of PEP-severity. The cotton consensus criteria is no longer used for evaluation of PEP-severity, since the Revised Atlanta definition has proven far superior.¹ Both the American and European society of Gastrointestinal endoscopy recommends the revised Atlanta for evaluation of PEP-severity.² All PEP-cases should be reappraised. The statistical analyses aren't described in detail that ensures reproducibility. The numbers for PEP-incidence do not add up. The authors state that a total of 9.7% (n=78) of the included ERCP patients had a case of PEP. They describe that 40 patients were diagnosed with PEP in the early stage and 38 patients in the late stage. Surely some of the early stage patients are included in the late phase? Or were the patients not evaluated again if they were diagnosed in the early stage? This needs to be clear. The study included 804 ERCPs - of these 37.7% were on a diagnostic indication. Diagnostic ERCP is not recommended since the risk of PEP outweighs the potential benefits.³ This needs to be addressed in the discussion since it introduces a bias and reduces transferability to other ERCP centers. In table 1, it is described that 25.1% and 12.1% have elevated lipase and amylase levels before ERCP respectively. These patients should have been excluded, since it remains unconfirmed if these patients actually were developing acute pancreatitis before ERCP or potentially had unconfirmed chronic pancreatitis. Many of the references used in the introduction does not represent current knowledge. For example, the frequency of PEP is referenced with publications all from the 80s and 90s. Perhaps the authors should read Leerhøy and Elmunzer's recent publication How to Avoid Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis for an updated literature review on the topic. The authors evaluated 4192 patients who underwent ERCP, but only included 804



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patients. How many of these were because blood tests weren't performed? If this is the main exclusion criteria, it introduces a large selection bias. Minor comments. Abstract Line 2, change to new onset of acute pancreatitis Introduction: Line 2, same as above Line 4, not correct. Both the cotton and Atlanta definition should be mentioned here. Please see ASGE and ESGE guidelines. Regarding frequencies of PEP. The applied numbers and references don't represent current knowledge. These should be updated. Materials and methods: Line 1, "The subjects were...." change to: A total of 4,192 patients who underwent ERCP...were evaluated for inclusion. Discussion: Line 2, "Our study showed that s-lip is sign more useful than...." Due to the study design this conclusion is not warranted. Change to Our study indicated that s-lip might be preferable in the early diagnosis of PEP (or similar) Line 5, "More than 50 years...." Delete sentence. Line 10/11, "If PEP is diagnosed early ...which can prevent more severe states". We do not know if this is true - currently no specific treatment is available. 3th to last line page 8, Do you consider a CT scan a highly invasive examination? And why is it warranted? If the patient has elevated enzymes an abdominal pain, they per definition have PEP and should be treated as such. 2th to last line page 8, change lipase to s-lip Page 9 in the limitation section, "...it was a single-center study..." In the method section you describe that you included patients from two hospitals? Futhermore, selection bias needs to be addressed in the discussion. Bottom page 9, conclusion. Due to study design the conclusion needs to be lees affirmative. Perhaps change to: In this study s-lip was more useful than s-amy....

1. Smeets X, Bouhouch N, Buxbaum J, et al. The revised Atlanta criteria more accurately reflect severity of post-ERCP pancreatitis compared to the consensus criteria. United European Gastroenterol J. 2019;7:557-64.
2. Dumonceau JM, Andriulli A, Elmunzer BJ, et al. Prophylaxis of post-ERCP pancreatitis: European Society of Gastrointestinal Endoscopy (ESGE) Guideline - updated June 2014. Endoscopy. 2014;46:799-815.
- 3.



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Leerhoy B, Elmunzer BJ. How to Avoid Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis. *Gastrointest Endosc Clin N Am.* 2018;28:439-54.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- The same title
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- Plagiarism
- No

BPG Search:

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- Plagiarism
- No



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Name of journal: World Journal of Gastrointestinal Endoscopy

Manuscript NO: 50142

Title: Usefulness of serum lipase for early diagnosis of post-endoscopic retrograde cholangiopancreatography pancreatitis

Reviewer's code: 00003940

Reviewer's country: Australia

Science editor: Jin-Zhou Tang

Reviewer accepted review: 2019-07-23 12:10

Reviewer performed review: 2019-07-25 06:59

Review time: 1 Day and 18 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
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			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Why were there only 804 cases out of 4192 ERCPs? Were some patients excluded? Should the study be repeated in a screening setting to determine the results when there was significant pain and when patients were pain free? Many of the references were



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very old and should be revised in the more modern literature. These results are similar to ours(1) in an emergency ward setting where we demonstrated the diagnostic advantage of s.lipase. We presumed the difference in ROC curves was partly because amylase is derived from other organs than the pancreas and that the lipase measure was specific for pancreatic lipase. In the setting of ERCP presumably both enzymes are elevated by damage to the pancreas. So why the difference? I am not sure what would be different in the care of patients with elevated enzyme values after ERCP. In our hospital system patients mostly have the ERCP in an outpatient setting. What would be the impact on hospital beds if S. Lipase was used as a screening where mild pancreatic inflammation would be difficult to discern from moderate to severe inflammation? Reference List (1) Smith RC, Southwell-Keely J, Chesher D. Should serum pancreatic lipase replace serum amylase as a biomarker of acute pancreatitis? ANZ J Surg 2005; 75(6):399-404.

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