

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 16042

Title: Preliminary study of photodynamic diagnosis using 5-aminolevulinic acid in gastric and colorectal tumors

Reviewer's code: 03094763

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Science editor: Jing Yu

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	PubMed 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 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

General evaluation: In the manuscript, the authors describe a prospective single-center study investigating the applicability of photodynamic diagnosis using 5-aminolevulinic acid (5-ALA) in patients with gastric and colorectal cancer. Overall, ten patients were enrolled with a total of 13 lesions, 8 patients suffering from gastric cancer and 3 patients with colorectal tumors. Patients were orally administered 5-ALA in enteric capsules, which accumulates specifically in the tumor and is a precursor of fluorescence-emitting protoporphyrin IX, before endoscopic tumor resection. Subsequently, the resected specimens were subjected to ex vivo fluorescent endoscopy to detect the accumulation of protoporphyrin IX in the tumor. In 60 % of the gastric lesions fluorescence was observed, while only one out of three colorectal lesions emitted fluorescence. Four out of ten patients developed liver dysfunction, showing a slight increase in transaminase and total bilirubin levels. The authors claim, that oral administration of 5-ALA using enteric capsules avoids non-specific background fluorescence in the gastric mucosa and is safe for the patients. Overall, the manuscript is well written and describes comprehensible a prospective single-center study investigating the

applicability of photodynamic diagnosis using 5-ALA in resected specimens of patients with gastric and colorectal cancer. There are, however, some minor points of criticism as listed below. Minor points: - The authors need to discuss their results in light of the up-to-date literature, e.g. Nakamura T et al., Photodiagnosis Photodyn Ther. 2014 Nov 20. pii: S1572-1000(14)00135-5: "Evaluation of a novel high-resolution magnifying videoendoscope that is capable of photodynamic diagnosis and therapy for gastric cancer" and Namikawa T et al., J Surg Oncol. 2014 Mar;109(3):213-7: "Photodynamic diagnosis using 5-aminolevulinic acid during gastrectomy for gastric cancer". - p. 9, Discussion, para 2, ln 9-11: The authors should be careful with the statement "This is the first practical study, to our knowledge, of PDD using 5-ALA to show the presence of fluorescence in early gastric cancers". This passage needs to be rewritten (see references above). - p. 11, Discussion, para 2, ln 1-3: More emphasis should be placed on the passage: "A limitation of this study is that we examined the resected specimens ex vivo. Blood flow and oxygen saturation in the tumor would have differed from those observed in vivo." This issue should be mentioned also in the introduction section of the manuscript.