

## ESPS Peer-review Report

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

**ESPS Manuscript NO:** 3216

**Title:** Diffusion-weighted magnetic resonance imaging for the prediction of the response of rectal cancer to neoadjuvant concurrent chemoradiation

**Reviewer code:** 02451538

**Science editor:** Zhai, Huan-Huan

**Date sent for review:** 2013-04-15 15:08

**Date reviewed:** 2013-04-30 00:24

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	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"/> Existed	<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"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

## COMMENTS TO AUTHORS

The Authors submitted an interesting study that investigate the use of Diffusion-weighted magnetic resonance imaging (DW-MRI) as a predictor of the tumor response in 15 patients with rectal cancer undergoing chemoradiation (CRT) therapy by measuring the tumor Apparent diffusion coefficient (ADC). This is an open field in which a new knowledge is needed and this study, despite its limits, helps to provide new information that contribute to the current debate. I have some comments on this manuscript: Major comments 1. The outcomes of interests were, in my opinion, not well defined in the methods section. Please clearly define the outcomes of interests and not only as these were measured. In particular, the way in which you assessed the capacity of tumor ADC, by using DW-MRI, as a predictor factor to treatment response should be reported (I mean by evaluating if there are significant differences in the ADC values measured at each time endpoints in the group of patients with and without downstaging, with good and poor regression..etc..) 2. Please specify the study design (retrospective ?) at least in the abstract and in the methods section. Minor comments: 1. Please provide more information about the methods used for manually drawing the Region of interest (ROI) 2. In the fourth paragraph of the Discussion section the following sentences required to be supported by appropriate references :“Most studies have assumed that CRT decreases tumor cellularity.....” and “However, this reduction in tumor size is usually observed 3 weeks or more.....”. 3. It could be interesting to know also the ADC modifications in the 2 patients with pathological complete response (pCR). 4. Could be also interesting to know your opinion about the pathophysiological mechanism on the basis of significant increase in the mean ADC only in the early (2 week) period after the start of therapy. 5. In the discussion the Authors should also report the