

Format for ANSWERING REVIEWERS

August 25, 2012

Dear Editor,



Please find enclosed the edited manuscript in Word format (file name: 2429-review.doc).

Title: Mucocoele of the appendix: An unusual cause of lower abdominal pain in a patient with ulcerative. A case report and review of the literature

Author: Peter Laszlo Lakatos, Gabriella Gyori, Judit Halasz, Peter Fuszek, Janos Papp, Balazs Jaray, Peter Lukovich, Laszlo Lakatos

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 2429

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) ? Please specify the number of analyzed cases (291 vs. 254) in the abstract. Please provide exact numbers of tumor patients in this study. Authors claim that 291 patients have been investigated...however, in table 2 the number of patients is 254? The total number of cases in this study was 291 cases, but after CD15 immunohistochemical staining, only 254 cases of the presence of tumors, so after further analysis, the number of cases in this study is 254, and the subsequent statistical restatistics

(2)? What does off-chip means? Immunohistochemical staining process, the organization separated from the glass slide, leading to reduction in the number of cases

(3)? Please do not use abbreviations in the abstract and explain abbreviations when first used in the manuscript? overall survival time (OS); median overall survival time (mOS); disease free survival time (DFS); median disease free survival time (mDFS); relative risk (RR)

(4)? Abstract is of poor English quality and for the inexperienced reader in this scientific field not easily to understand ? **Abstract**

AIM: To explore the relationship of clinicopathological features, the neutrophils in the tumor microenvironment distribution with prognosis.**METHODS:** Two hundred and fifty-four formalin-fixed and paraffin embedded tissue blocks were analyzed in this study. Including tissues from tumor of cholangiocarcinoma (n = 254), and tumor adjacent tissues (n = 238). Tissue sections were stained for CD15 by immunohistochemical staining. CD15 is one of the marker of mature granulocytes, we observe CD15 expression to reflect the local tumor microenvironment distribution of neutrophils, and speculated that the tumor tissue and the adjacent tumor tissue neutrophil density, in order to reflect the tumor tissue and the adjacent tumor tissue inflammation. Analysis of Two

hundred and fifty-four cases of patients with cholangiocarcinoma tumor microenvironment local inflammatory state. Furthermore, Clinical data and the completed follow-up information of cholangiocarcinoma patients who underwent cholangiocarcinoma operation from January 2004 to December 2010 were analyzed retrospectively the relationship of clinicopathological features, neutrophils, and prognosis of the two hundred and fifty-four cases of patients. **RESULTS:** The positive expression rates of CD15 was significantly only related to the TNM stage. The differences in the positive expression rates of CD15 was significant between tumor tissues and tumor adjacent tissues. High CD15 expression in tumor tissues than in adjacent tissues(73.6% vs 54.6%). In tumor tissues with high expression of CD15 was significantly shorter overall survival time (OS) than low expression in CD15, the difference was statistically significant (median overall survival time (mOS) 39.77 months vs 16.87 months, $P = 0.008$), CD15 high expression were significantly shorter disease free survival time (DFS) than low expression in CD15, the difference was statistically significant (median disease free survival time (mDFS) 38.27 months vs 16.83 months, $P = 0.029$). By COX multivariate analysis, high expression CD15 in tumor tissues was an independent risk factor in predicting OS approximately for patients with cholangiocarcinoma($P = 0.012$, relative risk (RR) =1.601), but high expression CD15 in tumor tissues was not an independent risk factor in predicting DFS approximately for patients with cholangiocarcinoma($P = 0.073$, RR =1.462). **CONCLUSION:** Univariate analysis CD15 in cancer tissues with high expression DFS and OS shorter. Multivariate analysis in cancer tissue, CD15 high-expression is an independent risk factor for OS.

(5)? Please use a consistent way of citation?

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Hamilton, Rangaswamy Govindarajan, Cathy Eng, MD, and Charles D. Blanke. SWOG 0514: A phase II study of sorafenib in patients with unresectable or metastatic gallbladder carcinoma and cholangiocarcinoma. Invest New Drugs 2012; 30: 1646–1651[PMID:21748296 doi:10.1007/s10637-011-9719-0]

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(6)? There is missing information about the pathogenesis of the studied cases of cholangiocarcinoma. It appears important to report on patients with CCC and underlying Crohn' s disease or colitis ulcerosa?

Cholangiocarcinoma derive from epithelial tumors, diagnosis is late, prognosis is poor. Clinicians and scientists around the world are committed to finding disease genes cholangiocarcinoma, most of cholangiocarcinoma is primary, there are no other risk factors. Research findings from the US and Europe^[1-4], hepatitis C is the most important risk factor for cholangiocarcinoma (intrahepatic cholangiocarcinoma in particular), but research from South Korea and China^[5-7], found that hepatitis B is intrahepatic cholangiocarcinoma risk factors. A study from Japan confirmed the discovery of Europe and the United States^[8]. All of the above studies have confirmed cirrhosis is a risk factor of cholangiocarcinoma. Primary sclerosing cholangitis may develop cholangiocarcinoma (especially hilar cholangiocarcinoma), the disease is characterized by chronic inflammation of the liver damage and possibly merge the proliferation of progenitor cells, these patients the incidence rate of cholangiocarcinoma is 5%-10%^[9-12]. After approximately 50% of patients with primary sclerosing cholangitis diagnosis within 24 months was diagnosed with cholangiocarcinoma^[9-13]. Primary sclerosing cholangitis patients were diagnosed with cholangiocarcinoma average age is about 40 years old, while the general population is about 70 years old^[4,14]. Although there are many risk factors may promote the development of primary sclerosing cholangitis cholangiocarcinoma, but these risk factors is not enough to guide risk stratification of disease surveillance

(7) ? The provided tumor tissue score for CD15 evaluation appears to be based on staining intensity, percentage of positive cells and score calculating formula, however, this is not stated clearly. Please refine and provide profound explanation for how the score and how patient/tumor selection into High and Low was defined! Further, please provide names and initials of the two independent pathologists who evaluated CD15 expression?

The IHC staining scores (percentage of stained cells × staining intensity) CD15 is given for each case after semi-quantitative evaluation by two independent pathologists(Li Ren and Zhi-Yuan Mao). Percentage of stained cells was observed in every 100 positive cells / 100 = percentage of positive cells. Staining intensity was negative (0), weak (1), moderate (2), or strong (3). The final score of the specimen area: percentage of positive cells × staining intensity × 100. Each antibody immunohistochemical staining final score between 0 to 300 points, with a median score of the sector into high expression group and the low expression group, the median value is also included in the high expression group

(8) ? Please re-evaluate with a statistician, if 13 cases are indeed sufficient to make a point about TNM IV-stage and CD 15 expression ? I use SPSS19.0 statistical software, the relation of expression of CD15 with clinicopathological characteristics in tumor tissue use chi-square test, the results of TNM stage and CD 15 expression show that 1 cells (12.5%) have expected count less than 5. The minimum

expected count is 3.43. The standardized statistic is 2.399. Therefore, use Fisher's Exact Test of chi-square test, the value of χ^2 is 8.589, Exact Sig. (2-sided) of P is 0.032, it is statistically significant. Although the cases of TNM IV-stage only 13, after correction fisher exact test, still statistically significant.

(9) ? 74 R1 Patients and 217 R0 resected patients with CCC. How authors evaluated CD15 Expression regarding R classification. How R margin status impacts CD15 significance in CCC ? Now there is evidence to prove the relationship between neutrophil expression in tumor prognosis, and there is no evidence in the R0 and R1 resection of the tumor, the expression of neutrophil incorrect differences. This study is described in R0 and R1 resection of the tumor, the expression of neutrophil no difference, if need to prove the R0 and R1 resection of the tumor, the neutrophils expressing has differences or not, it need further research and experimentation, as well as to expand the sample size confirmed. In Table 1, only appears in the R0 and R1 resection of cholangiocarcinoma, no statistically significant difference (P = 0.900) in CD15 expression, it is R0 and R1 resection of cholangiocarcinoma, there was no difference of neutrophils

(10) ? Of great importance is the fact that the authors claim CD15 proves to be an independent prognostic factor in CCC, because of significant results in the multivariate analysis. However, the data provided in this manuscripts do not support this concept, as in the COX regression only tumor differentiation (p<0.004), margin (R) status (p<0.014) and TNM stage (p<0.001), but not CD15 expression (p=0.073!!), deliver significant p values and, thus present prognostic independence! Why do the authors then claim CD15 to be an independent prognosticator ? my result of the manuscripts is by COX multivariate analysis, high expression CD15 in tumor tissues was an independent risk factor in predicting OS approximately for patients with cholangiocarcinoma(P = 0.012, relative risk (RR) =1.601), but high expression CD15 in tumor tissues was **not** an independent risk factor in predicting DFS approximately for patients with cholangiocarcinoma(P = 0.073, RR =1.462). So I claim CD15 to be an independent prognosticator in OS, but not in DFS.

(11) ? The discussion gives an overview about published data concerning the relationship between prognosis of different tumor entities and inflammatory markers, mainly CD15 positive granulocytes in the tumor-environment. A review about the clinical value of those findings is missing ? summing up published data concerning the relationship between prognosis of different tumor entities and inflammatory markers, in a variety of tumor infiltrating neutrophils have a poor prognosis, which may act as a preliminary clinical prognosis of cancer patients to provide some help, in addition to infiltration by neutrophils for clinical treatment of cancer provide clues. (has been described in the article)

(12) ? The interpretation of the results is not adequate. It firstly lacks a statement about the incoherence concerning a risk assessment on disease recurrence (multivariate vs. univariate analysis). Secondly, it lacks thoughts about a relation between CD15 positive neutrophils and tumor progression as well as a possible target function. Up-to-date literature about "immune" targeted-therapy in cholangiocarcinoma is missing ? Adjustments were original and incoherence concerning a risk assessment on disease recurrence, and a relation between CD15 positive neutrophils and tumor progression as well as a possible target function, re-inspection "immune" targeted-therapy in cholangiocarcinoma, and added

(13) ? Please correct the key of figure 2 ? I want to say expression of CD15 and TNM staging have relevant, based the correlation, using SPSS statistical software generated histogram, so change to histogram of correlation between CD15 expression in tumor tissues and TNM staging. The blue means low expression of CD15 and the green means high expression of CD15.

(14) ? The cited literature is not up to date. Please review the literature ? Has been re-check the latest literature, and add

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

Zhi-Yuan Mao