JBUON 2014; 19(4): 1130-1132
ISSN: 1107-0625, online ISSN: 2241-6293 • www.jbuon.com
E-mail: editorial_office@jbuon.com

CORRESPONDENCE

Comment on Zhao et al. article: IL-17A G197A and IL-17F T7488C polymorphisms and cancer risk in Asian populations: a meta-analysis

Drs. Chun Liu*, Rong Xia.
Department of Stomatology, the Second Hospital of Anhui Medical University, Hefei, China.
**Correspondence: amuliuchun@gmail.com, xiarongqh@gmail.com*

We read with great interest the results of the meta-analysis conducted by Zhao et al. [1].The investigators performed a meta-analysis to estimate the association between IL-17A G197A and IL-17F T7488C polymorphisms and risk for cancer. We appreciate the authors' efforts to draw a conclusion that IL-17A G197A polymorphism is associated with a increased risk significantly for specific forms of cancer. However, we have several queries and would like to communicate with the authors.

1. As for the 8 case-control studies included in the article, only 2 electronic databases (PubMed and Web of Science) were searched by the authors, while they claimed that they had collected all available published studies. We believe the 8 studies in 6 articles may not support the conclusion which may change the results of meta-analysis on IL-17A G197A polymorphism. Therefore, we would like to know whether the authors had searched other databases for more data.
2. All the studies were performed in three countries, and we wonder whether the data from three countries can stand for Asian populations. At the same time, the language of the studies was limited to English. It is likely some other data in other countries and in other language may have been ignored, which may result in more risk of bias and imprecision of the meta-analysis.
3. In Table 1, the number of "501" is not in conformity with the original article by Wang et al., therefore, it should be changed to "502".
4. In the Results section, the funnel plot was symmetrical, which indicates that there is no publication bias. However, as the number of the studies was less, it is vital to assess for publication bias with more trials.

In conclusion, we appreciate the results of this meta-analysis by Zhao et al. However, it is important to analyse more studies and perform wider retrieval. We believe this suggestion will contribute to more precise elaboration of the results proposed by Zhao et al.

References

1. Zhao HY, Wang R, Ma W. IL-17A G197A and IL-17F T7488C polymorphisms and cancer risk in Asian populations: a meta-analysis. JBUON 2014;19:562-566.

Reply to Drs Liu and Xia

Dr. Hong-Yu Zhao.
Central Laboratory, The Second Affiliated Hospital of Southeast University, 210003 Nanjing, People's Republic of China.
Correspondence: zhaohy1223@163.com

We are glad to receive the precious comments from Drs. Liu and Xia.

After discussion, we reply as follows: Only two databases including Pubmed and Web of Science were searched in our meta-analysis because of two reasons: (1) only these two databases were available to our researchers. No doubt, we also desired to search other databases consisting of high quality literature like Embase etc; (2) the two databases in our study basically covered almost all the high quality biomedical literature, which could contribute to assessment for IL-17A G197A and IL-17F T7488C polymorphisms and cancer susceptibility. Based on Pubmed and Web of Science, we collected all available published studies. Finally, 8 eligible case-control studies with 3,323 cases and 3,974 controls were included into our study. The current meta-analysis was just a pooled analysis aimed at inconsistent reports, having thus had a temporary conclusion. This conclusion needs more better designed studies to be confirmed.

Based on past single-center studies, the current meta-analysis was performed in Asians, including Chinese, Japanese and Iranian populations. Given the majority of Asian populations had similar genetic background, the conclusion may be applied to populations of other Asian countries. Due to the impossibility of mastering all Asian languages for researchers, language bias, a common lim-

itation of meta-analyses, seems to be inevitable. Certainly, it is well known that the language of the studies was limited to English, which may result in more risk of bias. We hope researchers that mastered more languages devoted in more comprehensive studies on the association of IL-17A G197A and IL-17F T7488C polymorphisms and cancer risk in Asian populations would help find whether language bias could influence our conclusion.

A previous case-control study enrolled 502 control subjects [1], however, only 501 control subjects genotype data was obtained while in the analysis of the rs2275913 polymorphism.Thus, the number of control subjects was 501 instead of 502.

As mentioned by Drs. Liu and Xia, the number of enrolled studies in the meta-analysis was important for the assessment of publication bias. Henceforth, more case-control studies are warranted to increase the accuracy and stability of publication bias identification for funnel plot.

References

1. Wang L, Jiang Y, Zhang Y et al. Association analysis of IL-17A and IL-17F polymorphisms in Chinese Han women with breast cancer. PLoS One. 2012; 7:e34400.

Comment on Liu et al.'s article: "The true role of mRECIST guideline: does it really estimate viable tumor or merely improve accuracy in hepatocellular carcinoma response evaluation?"

H. Moschouris[1], A.Papadatou[1]*, K.Malagari[2].
[1]Diagnostic and Interventional Radiology Dept, "Tzanio" General Hospital, Piraeus, Greece; [2]2nd Dept of Radiology, University of Athens, Athens, Greece.
**Correspondence: aggelikpap@yahoo.gr*

We read with interest the article of Liu et al [1], in which the authors report on the strengths and limitations of mRECIST on the evaluation of response and prognosis of hepatocellular carcinoma (HCC), treated with transarterial chemoembolization (TACE), and we would like to briefly comment on this work.

In 10.5% of their original study population (15/143 cases), the authors were unable to apply mRECIST: 10 out of 15 cases were ill-defined (infiltrative) and/or atypically enhancing tumors, which lacked measurable arterially enhancing components. Diffusion-Weighted Magnetic Resonance Imaging can detect TACE-induced tumor necrosis without the need of contrast-enhancement and could facilitate the evaluation of the aforementioned tumors, however, at present, this method cannot replace standard contrast-enhanced imaging [2]. In a series of HCC patients treated in our institution with Drug-Eluting Beads TACE, we encountered infiltrative and hypovascular HCCs in 5 patients, compared to 47 patients with tumors suitable for mRECIST measurements [3]. Of note, infiltrative and hypovascular HCCs (Figures 1A,B of the original paper) are associated not only with difficulties in their response evaluation, but also with a worse prognosis, compared to the encapsulated and hypervascular HCCs [4,5]. In 5 other cases of Liu et al, difficulties in response evaluation were caused by treatment-induced changes. Intratumoral lipiodol accumulation may cause hyperdense artifacts, which may mask residual tumoral enhancement on Contrast-Enhanced Computed Tomography. Contrast-Enhanced Magnetic Resonance (CEMR) or Contrast-Enhanced Ultrasound (CEUS) are not susceptible to such artifacts and can be alternatively utilized [2]. Intratumoral hemorrhage may also produce confusing intratumoral areas, which are hyperdense on CT and hyperintense on T1 sequences of MR, and which also interfere with detection of residual enhancement. The problem can be overcome by utilizing CEMR with subtraction technique, or with CEUS [2].

There is another subgroup of tumors (approximately 10% of the TACE-treated HCCs according to our experience) in which, despite the presence of arterial tumoral enhancement, application of mRECIST may prove challenging. For example, a single measurement of the maximum diameter of the largest enhancing component may overestimate the therapeutic effect in tumors with multiple, irregular and discontinuous islets of residual enhancing tissue (Figure 1C of original paper). On the contrary, the unidimensional measurement may result in underestimation of the necrosis caused by TACE, if the residual viable tumor has the shape of long, narrow enhancing band (Figure 1D of the original paper). In similar cases, EASL criteria, or (preferably) volumetric calculations of the extent of residual enhancement may provide a more reliable assessment [6]. However, the latter method increases the complexity of the evaluation and is not widely available.

Despite the aforementioned limitations, we believe that mRECIST is a practical tool for the evaluation of tumor response and there is growing evidence on the prognostic value of this system, both in the context of TACE, and after antiangiogenic treatment of HCC. We agree with Liu et al. that to increase the reliability of mRECIST, careful selection of patients is required. Regarding tumors not suitable for mRECIST, no widely accepted guidelines exist at present; imaging approach of such tumors should probably be tailored to the particularities of each case, and should be based on the aforementioned alternative techniques.

References

1. Liu Q, Li A, Sun S, Luo R, Chen F.The true role of mRECIST guideline: does it really estimate viable tumor or merely improve accuracy in hepatocellular carcinoma response evaluation? JBUON 2014;19:398-405.
2. Yaghmai V, Besa C, Kim E, Gatlin JL, Siddiqui NA, Taouli B. Imaging assessment of hepatocellular carcinoma response to locoregional and systemic therapy. AJR Am J Roentgenol 2013;201:80-96.
3. Moschouris H, Malagari K, Papadaki MG et al. mRECIST criteria and contrast-enhanced US for the assessment of the response of hepatocellular carcinoma to transarterial chemoembolization. Diagn Interv Radiol 2014;20:136-142.
4. Demirjian A1, Peng P, Geschwind JF et al. Infiltrating hepatocellular carcinoma: seeing the tree through the forest. J Gastrointest Surg 2011;15:2089-2097.
5. Katyal S, Oliver JH, Peterson MS, Chang PJ, Baron RL, Carr BI. Prognostic significance of arterial phase CT for prediction of response to transcatheter arterial chemoembolization in unresectable hepatocellular carcinoma: a retrospective analysis. AJR Am J Roentgenol 2000;175:1665-1672.
6. Chapiro JL, Wood LD, Lin M et al. Radiologic-Pathologic Analysis of Contrast-enhanced and Diffusion-weighted MR Imaging in Patients with HCC after TACE: Diagnostic Accuracy of 3D Quantitative Image Analysis. Radiology 2014 Jul

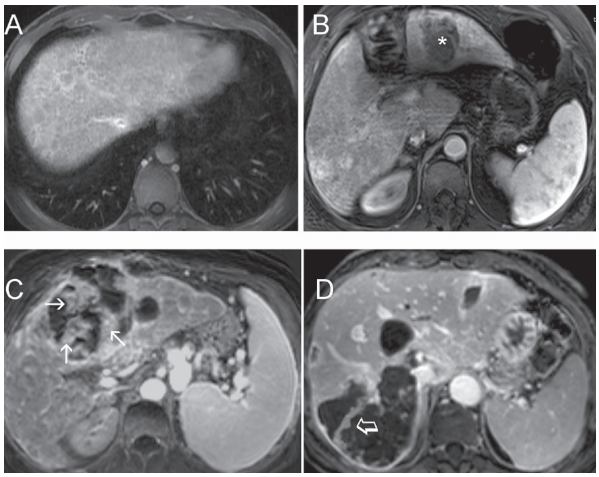

Figure 1. Axial, gadolinium-enhanced, T1-weighted MR images, with examples of HCC not suitable for accurate assessment with mRECIST: In tumors which are diffusely infiltrating (A), or hypovascular (asterisk, B), prior to treatment, measurement of clearly defined, arterially enhancing components may be impossible. Moreover, the unidimensional measurement of the largest enhancing residual component, may not reliably predict the extent of TACE-induced necrosis in tumors with multiple, irregular and discontinuous islets of viable tissue (arrows, C), or when the residual tumor has a bizarre, elongated shape (open arrow, D).

Reply to Dr. Moschouris et al.'s comment

Qi Liu[1,2], Aimin Li[1], Shufang Sun[2], Rongcheng Luo[1]*, Fengsheng Chen[1]

[1]Cancer Center of Southern Medical University, Guangzhou, Guangdong; [2]Dept of Medical Oncology of Dongguan People's Hospital, Dongguan, Guangdong, China

**Correspondence: rongchengluo67@163.com*

We agree with Dr. Moschouris's et al.'s opinion for our paper, which offers a good idea for clinical research. On account of diverse conditions, alterative methods should be adopted as complementary strategies, such as Diffusion-Weighted Magnetic Resonance Imaging, Contrast-Enhanced Magnetic Resonance (CEMR) or Contrast-Enhanced Ultrasound (CEUS), unless the clinical efficiency of transcatheter arterial chemoembolization (TACE) in the treatment of hepatocellular carcinoma could be evaluated by Contrast-Enhanced CT [1,2]. According to the clue mentioned in our study, PET-CT may be taken as an option [3]. Under the circumstances, Modified Response Evaluation Criteria In Solid Tumors (mRECIST) will be further expanded in clinical use.

Based on the clinical experience of Dr. Moschouris et al, a new truth that mRECIST standard may result in deviation has been discussed. We accepted this particular view. In our point of view, however, the definition of measurement is of significant value for clinical diagnosis only when the error would be demonstrated to affect overall survival of patients based on the conclusions of extensive comparative studies.

Furthermore, increasing pieces of evidence indicate that both mRECIST and the European Association for the Study of the Liver (EASL) show similar clinical value for the assessment of tumor prognosis [4,5]. Both methods are feasible. We tend to adopt mRECIST standard compared to EASL standard because the latter is more difficult to detect and sensitive to interference, resulting from dual-diameter measurement [6].

Whatever assessment for therapy standard will be adopted, various factors should be well-considered before screening suitable patients of a clinical trial. Otherwise, the whole progress of a clinical trial is hampered when tumor assessment cannot be performed appropriately after treatment.

References

1. Yaghmai V, Besa C, Kim E et al. Imaging assessment of hepatocellular carcinoma response to locoregional and systemic therapy. AJR Am J Roentgenol 2013;201:80-96.
2. Moschouris H, Malagari K, Papadaki MG et al. mRECIST criteria and contrast-enhanced US for the assessment of the response of hepatocellular carcinoma to transarterial chemoembolization. Diagn Interv Radiol 2014;20:136-142.
3. Liu Q, Li A, Sun S et al. The true role of mRECIST guideline: does it really estimate viable tumor or merely improve accuracy in hepatocellular carcinoma response evaluation? J BUON 2014;19:398-405.
4. Kim BK, Kim SU, Kim MJ et al. Number of target lesions for EASL and modified RECIST to predict survivals in hepatocellular carcinoma treated with chemoembolization. Clin Cancer Res 2013;19:1503-1511.
5. Shim JH, Lee HC, Kim SO et al. Which response criteria best help predict survival of patients with hepatocellular carcinoma following chemoembolization? A validation study of old and new models. Radiology 2012;262:708-718.
6. James K , Eisenhauer E , Christian M et al. Measuring response in solid tumors: unidimensional versus bidimensional measurement. J Natl Cancer Inst 1999;91:523-528.