Comment on Fu et al.: A systematic review of p53 as a biomarker of survival in patients with osteosarcoma

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To the Editor:

In this meta-analysis, Fu et al. [1] performed a systematic review to assess the effect of upregulated p53 on the 3-year overall survival and the 3-year disease-free survival by calculating the pooled odds ratio (OR) with corresponding 95 % confidence interval (95 % CI). They reached an important conclusion that patients with upregulated p53 were obviously associated with decreased 3-year overall survival (OR=0.29; 95 % CI, 0.19–0.43; $P<0.001$) and decreased 3-year disease-free survival (OR=0.06; 95 % CI, 0.02–0.23; $P<0.001$). It is a valuable study. Nevertheless, there are some comments we would like to raise related to this article.

Firstly, we think there are some deficiencies in literature search. Third electronic databases (Medline, Embase, and China Biology Medicine database) were systematically searched by the investigators. The small number of required papers would be an important limitation of the review. We hope that more electronic databases can be systematically searched. Meanwhile, the investigators did not focused specifically or in any details on the issue of the completeness of the search strategy report for databases, which play an important role in systematic reviews. We suggest that the investigators provide us a complete search protocol to strengthen the credibility of the system review.

Secondly, the investigators might ignore some important procedures in this system review. They did not provide us the characteristics of the eligible studies, such as case number, age, sex, p53 expression level classification, and osteosarcoma

classification. Moreover, the investigators also did not make sensitivity analyses to explain the different parameters in these included studies. In addition, the investigators should also provide us the correlation of p53 with clinicopathological parameter. We are eager to know why they did not provide us this information.

Thirdly, the investigators included five Chinese studies [2–6]. We read these studies carefully and think that the study by Zhang et al. [3] should be excluded from the system review. Zhang et al. reported that p53 expression did not enter the regression model and there has no significances between p53 positive expression and p53 negative expression.

Finally, the investigators used the odds ratio (OR) to report the risk value rather than relative risk (RR). As there are 15 studies finally included, RR can report the real risk value fold better than OR. Therefore, we suggest that RR should be used to report the risk value in this system review.

We agree that p53 is an effective biomarker of survival in patients with osteosarcoma. However, the limited sample size may inevitably increase the risk of bias or random errors. Therefore, more studies with a large sample size are needed to identify the effect of p53 expression in the osteosarcoma patients.

Conflicts of interest We have no competing interests to declare.

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