Letter regarding Chen et al. entitled “A systematic review of vascular endothelial growth factor expression as a biomarker of prognosis in patients with osteosarcoma”

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Dear Editor,

We read with great interest the recent paper entitled “A systematic review of vascular endothelial growth factor expression as a biomarker of prognosis in patients with osteosarcoma” published online in Tumor Biology by Chen D et al. [1]. The investigators preformed a systematic review and meta-analysis to assess the effect of VEGF expression on the overall survival rate and the disease-free survival rate. They concluded that patients with high VEGF expression were obviously associated with lower survival and it is an effective biomarker of prognosis in patients with osteosarcoma. It is an interesting and valuable article. Nevertheless, we have some comments related to this article.

To begin with, the investigators performed a systematical search only in two electronic databases (PubMed and Embase databases). The small number of required papers would be an important limitation of this review. We recommend that more electronic databases should be included into this meta-analysis. Meanwhile, to make this meta-analysis understand better, the investigators should provide a flow diagram of the study selection protocol to strengthen the credibility of this system review.

Furthermore, in the meta-analysis of the effect of VEGF expression on disease-free survival, there was obvious between-study heterogeneity among those eight studies ($I^2=56.4\%$). The investigators should conduct the sensitivity analyses to find the reason of obvious heterogeneity.

In addition, this review included 12 studies with a total of 559 osteosarcoma patients. But the investigators did not provide us any basic characteristics of these eligible studies. To make us read this paper well, we suggest that the investigators should provide us with the characteristics, such as age, tumor size, tumor stage, histological types, and survival results.

Eventually, the investigators concluded that VEGF expression is an effective biomarker of prognosis in patients with osteosarcoma, but they only focused on the effect of VEGF expression on the overall survival rate and the disease-free survival rate. To make this paper better, the effect of VEGF expression on clinical stage, local relapse, and distant metastasis should be added in the results selection.

In conclusion, to get a more comprehensive evaluation of the prognostic role of VEGF expression in patients with osteosarcoma, more well-designed studies with larger sample sizes are needed.

Conflicts of interest None

Reference

1. Chen D, Zhang YJ, Zhu KW, Wang WC. A systematic review of vascular endothelial growth factor expression as a biomarker of prognosis in patients with osteosarcoma. *Tumour Biol J Int Soc Oncodevelopmental Biol Med.* 2013;34(3):1895–9.

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