Author's response to reviews

Title: Predicting Prognostics in Hepatocellular Carcinoma after Curative Surgery with Common Clinicopathologic Parameters

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Dear Editor,

We are pleased to submit our manuscript, “Predicting Prognostics in Hepatocellular Carcinoma after Curative Surgery with Common Clinicopathologic Parameters”, for consideration in BMC Cancer. Hepatocellular carcinoma (HCC) is a cancer type that is highly lethal, partially because its prognosis following surgery (the only treatment to date) differs substantially and is largely unexplained. Herein, we comprehensively characterized the association between HCC prognosis and clinicopathologic parameters (including serum levels of alpha fetoprotein, total albumin concentration, venous infiltration, new AJCC stage, tumor size, and the number of tumor nodule). Further, we established a predictive model which can use those parameters to accurately predict HCC prognosis. In both self-validation and independent patients, we demonstrated the model's excellent performance.

Previous publications often employed small sample size and lack repeatability. Herein, we utilized large patient cohort and independent validation set to precisely quantify the association strength between HCC prognosis and clinicopathologic parameters. Several staging or prognostic systems have been developed to guide the prognosis and treatment of patients with HCC, including Okuda, Cancer of the Liver Italian Program (CLIP) and Barcelona Clinic Liver Cancer (BCLC) staging systems. Reported recently, we found Okuda staging...
and CLIP had limited prediction power for survival in a Chinese HCC cohort (Yau et al, Cancer. 2008 Oct 13. Epub ahead of print). BCLC is applicable only when the whole range of patients are included, including early, intermediate, and advanced HCC. Therefore, it cannot be directly compared with our linear predictor. Moreover, these scoring systems have been devised by a series of ad hoc rules. In contrast, our model is objective and can readily accommodate the information of new patients and biomarkers, by simply updating the linear model and the set of coefficients. This powerful framework will allow us to continuously improve the model when new data becomes available, and is particularly important as molecular biomarkers for HCC could be incorporated in the future.

We believe the results and the predictive model will be of high interest to a broad readership in HCC treatment and research. Please do not hesitate to contact us if there is any additional information that can help to facilitate the timely review of this manuscript.

Sincerely,

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