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Reviewer #1

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Title of the article: "Adjuvant sorafenib after hepatectomy for BCLC-Stage C hepatocellular carcinoma patients: A case-matched comparative study "

Opinion for the editor:

The article about the efficacy and safety of adjuvant sorafenib after curative resection for patients with BCLC-Stage C HCC is interesting, properly structured and with a clear message - the potential benefit and safety of sorafenib treatment in decreasing HCC recurrence and extending disease-free and overall survival for patients. Analyzed were 34 patients with HCC, the study group was compared with a case-matched control group of 68 patients who received curative hepatectomy for HCC during the study period. The results confirmed that disease-free survival and cumulative overall survival in the study group were significantly better than the control group - the authors unfortunately do not explain why were early tumor relapsing patients excluded, and not used as a subgroup of treated ones. The study has some limitations: small number of patients and the study is from a single institute - "Institute of Hepatobiliary Surgery".

Target readers of this article are mainly surgeons, oncologists and gastroenterologists.

I suggest to accept this paper with minor revisions.

Opinion to be conveyed to the author:

Title and running title: accurately reflects the topic and contents of the paper

Key words: 5 key words, precisely define the content of the paper.

Abstract: is appropriate, properly structured (aim/methods/ results/ conclusions), 220 words.

Introduction: is informative, short, 353 words, the reader is acquainted with the known facts about HCC and modalities of treatment.

Methods: definition and methodology of included patients is precise (patients selection, preoperative assesment, type of surgery – partial hepatectomy, conventional surveillance strategy and treatment with sorafenib). The study is retrospective, data were prospectively collected and entered into a computer database.

Statistical analysis: *statistical software used is quite old (SPSS 13.0, SPSS Inc.,Chicago, IL) ?*

Reply: The statistical methods used in this study were very common and simply, and the function of SPSS 13.0 is enough for the statistical analysis.

Results: the results obtained are appropriately explained, illustrated by 4 tables and 1 figure (A and B - survival analysis in the Sorafenib group and control group). The authors unfortunately do not explain why were early tumor relapsing patients excluded, and not used as a subgroup of treated ones.

Reply: The patients with tumor recurrence diagnosed within two months after operation may relate to the uncurative resection. And Sorafenib treatment would be initiated in the first month after surgery followed the formal consent of patents. Therefore, the short time adminstration can not led to the effect of prevention of recurrence.

Discussion: the discussion is appropriate, relevant, 932 words, supported by references and the results obtained in other settings. The authors draw attention to the importance of adjuvant sorafenib for BCLC stage C patients after curative resection. They share the opinion that adjuvant systemic treatment is the most promising of all adjuvant therapies for “locally advanced” HCC.

Conclusions: short, 36 words, last chapter in discussion, in accordance with the results.

References: 35, are appropriate, relevant, from 2003 (Lancet) to 2015 (Lancet Oncol 2015), included are contemporaray references with guidelines/recommendations (N Engl J Med, Hepatology, Gastroenterology) for these patients.

Ethics Committee approval: the study was approved by the Ethics Committee of the Southwest Hospital before the study began. Written informed consent was obtained from all patients for their data to be used for research purposes.

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Conflict of interest: the authors declared no conflict of interest.

Reviewer #2

This case control study proves the important clinical role of sorafenib as an adjuvant treatment after R0 resection of BCLC-C stage HCC patients. It would be worth using sorafenib not just in advanced but in early stages of HCC, in my opinion. Minor point that needs revision: How was the HCV status of the studied patients? Why were early tumor relapsing patients excluded, and not used as a subgroup of treated ones? After minor revision I suggest to accept the manuscript for publication in WJG.

Reply: The patients with HCV infection is very few in China. No HCV patients was identified in this study. The patients with tumor recurrence diagnosed within two months after operation may relate to the uncurative resection. And Sorafenib treatment would be initiated in the first month after surgery followed the formal consent of patients. Therefore, the short time administration can not lead to the effect of prevention of recurrence.

Reviewer #3

Thank you for this interesting study. A few points to address 1. why were recurrence <2 months excluded? these should be included at least in the results section 2. it is confusing to state in the results section 3. is the higher AFP (in fact double) definitely not statistically significant between control and active groups

Reply: The patients with tumor recurrence diagnosed within two months after operation may relate to the uncurative resection. And Sorafenib treatment would be initiated in the first month after surgery followed the formal consent of patients. Therefore, the short time administration can not lead to the effect of prevention of recurrence. Actually, the patients with recurrence in the two months after surgery were fewer than 5%. It is not considered as an important role for the study.

The value of AFP had been evaluated in this study. It showed that no significant difference in the two groups, and also no impact on the tumor recurrence after surgery with or without sorafenib administration.