Reviewer’s report

Title: Predictors of Esophageal Varices in Patients With HBV-related Cirrhosis: A retrospective study

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Reviewer: Roberto de Franchis

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The topic of predicting the presence of esophageal varices in patients with cirrhosis before doing endoscopy is an important one, because, if an adequate method could be developed for this task, this could greatly decrease the workload of endoscopy units.

The paper by Hong et al. is yet another attempt to tackle this goal, and suffers from the same limitations of several previous studies.

The Authors should be commended for a thorough statistical evaluation of the performance of their model; however, some points need discussion:

Major compulsory revisions

1. The population is largely composed of patients with decompensated cirrhosis, and only partially reflects the population in which an index to predict the presence of varices would be mostly applied in clinical practice, i.e. patients enrolled at the time of the diagnosis of cirrhosis. This might have artificially increased the performance of the prognostic index, and should be mentioned in the discussion.

2. The performance characteristics of the index are globally modest: the AUROC is inferior to that of other indexes such as the platelet count/spleen diameter ratio (Giannini et al, ref. 4) or CT esophagography (see Kim et al Radiology 2007;242:759-768). This should be mentioned in the discussion.

3. The other parameters, listed in Table 4, are also modest: the positive likelihood ratios of the different cut-off values are rather low, and the negative likelihood ratios are too high (except for the cut-off -0.3052; however the specificity for this cut-off is extremely low). This should also be discussed.

4. The study is retrospective. Prospective validation in an independent patient population is mandatory. This is mentioned in the discussion, but the Authors should state clearly that until this is done, the model should not be used as a substitute for endoscopy.

Minor compulsory revisions

Table 2: Males (%) and Ascites (%). In reality, the actual numbers and not the % are given.

The English language needs careful checking (e.g. results, page 6, 3rd line from bottom: I think that “dominated” really means “denominated”; page 7, 5th line from top: “significantly higher than platelet count” should be “significantly higher than platelet count”).
than that for platelet count”. Similar corrections must be done in several parts throughout the text)

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests