Letter to the Editor

Does ultrasound elastography have high value in diagnosis of biliary atresia in pediatric surgery?

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With great interest, we carefully read the recent paper entitled "*Ultrasound elastography in the diagnosis of biliary atresia in pediatric surgery: a systematic review and meta-analysis of diagnostic test*" (1), written by Li and colleagues, which was published in the latest issue of *Translational Pediatrics*.

As a rapid, economic, sensitive diagnostic option for biliary atresia (BA), ultrasound elastography (USE) has been developed in utilizing a two-dimensional ultrasound imaging system (2). A number of studies have assessed the role of USE in BA diagnosis, but its value as a diagnostic target has not been proven. The recently published meta-analysis by Li *et al.* (1) revealed that USE is an excellent test for diagnosing BA. Our aim with this letter is to address some shortcomings in this meta-analysis. Firstly, the literature search in this study has some flaws. To begin with, the investigators did not describe search strategy in detail and manual search protocol. The search strategy they used may not find all of the articles related to this topic. Consequently, in order to make this meta-analysis more robust, we suggest that the authors include a complete search strategy in this meta-analysis and choose more electronic databases such as Scopus, Web of Science, and Cochrane Library to find relevant studies.

Secondly, although the authors claimed that their meta-analysis adhered to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) standards, some methodological deficiencies were found in the review (3). However, after careful review, we found that this review was not registered in PROSPERO and with no Central Registration Depository (CRD) number. Furthermore, there were no quality assessments or detailed scores for selected studies in this meta-analysis, which is in violation of PRISMA guidelines (3).

Finally, the results of this meta-analysis are ambiguous. The authors claimed that a bivariate model was employed to examine the diagnostic utility of USE in BA in pediatric surgery in the results section (*Fig. 5*). According to the study summary of Nyaga *et al.*, receiver operating characteristic (SROC) plot presents only the overall summary point and the corresponding confidence region and/or prediction region in presence of more than one covariate (4). Thus, the relative diagnostic accuracy (sensitivity and specificity) should be present in forest plot. The relative diagnostic accuracy analysis is necessary for meta-analysis of diagnostic test accuracy, but we noticed that the author didn't perform relative diagnostic accuracy analysis to make the results more convincing.

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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