



An optimised search strategy is necessary to ensure a thorough search of the literature

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We read with interest the article by Niu *et al.* (1) entitled “The value of contrast-enhanced ultrasound enhancement patterns for the diagnosis of sentinel lymph node status in breast cancer: systematic review and meta-analysis”. Niu *et al.* (1) demonstrated that a homogeneous or uniform enhancement pattern suggested a benign lymph node, and a heterogeneous, no pattern, or weak enhancement pattern suggested a node is malignant, with a high sensitivity of 96.0% and moderate specificity of 80.7%. After a careful reading of this paper by Niu *et al.* (1), we would like to raise two points that should be considered in order to enhance the validity of the conclusion.

Firstly, Niu *et al.* (1) performed a systematic search for relevant studies through several electronic databases. However, after reviewing relevant articles, we found that an additional study by Agliata *et al.* (2) assessing the value of contrast-enhanced ultrasound (CEUS) in the evaluation of sentinel lymph node (SLN) status in patients with breast cancer meets the eligibility criteria and should be enrolled in this meta-analysis. The incomplete research results may lead to possibility of selection bias, affecting the generalizability of the conclusion. An optimized search strategy is the key to ensure a comprehensive search for

relevant articles.

Secondly, publication bias is inherent to the publication process, where larger studies or studies with positive results are often given priority for publications. For the evaluation of heterogeneity, meta-regression, and publication bias section, Niu *et al.* (1) described that the assessment of publication bias was carried out with Egger’s linear regression. However, this study is a systematic review and meta-analysis of diagnostic test accuracy studies. We believe that the Deeks’ funnel plot asymmetry test, which is a specific application developed for the assessment of publication bias of a meta-analysis of diagnostic accuracy studies (3-5), is more preferred than Egger’s linear regression used by Niu *et al.* (1).

In short, Niu *et al.* (1) described issues with regard to the value of CEUS enhancement patterns for the diagnosis of SLN status in breast cancer. However, the conclusion of this study should be interpreted with caution because of the concerns stated above.

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