

## Peer Review File

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### **Review Comments**

The authors have done a good research on diagnostic accuracy that largely aligns with the STARD 2015 guidelines. However the authors should work on the comments under methods and Discussion.

**Reply: None.**

#### Abstract

The abstract aligns well with the STARD 2025 guidelines in terms of objectives, methods, results, and conclusions. The main elements that are not detailed in the abstract are participant flow and limitations. Though stated under methods and discussion in the main text.

**Reply: We have modified our text as advised(see page 2,line 20;page 3 ,line 22)**

**Changes in the text:** Patients with BI-RADS 4 breast nodules who were hospitalized at the Department of Thyroid and Breast Surgery, Taizhou People's Hospital from December 2021 to June 2022 were enrolled in the study.

Limitations: The sample size was small, and the pathological type was single; thus, studies with larger sample sizes need to be conducted.

#### Introduction

The introduction aligns well with the STARD 2025 guidelines by providing a comprehensive scientific and clinical background, clearly stating the rationale for the study, and specifying the study objectives. It thoroughly discusses the existing gaps in current diagnostic methods and explains how the study aims to address these gaps. The detailed discussion on various diagnostic technologies and their potential benefits strengthens the rationale for the study.

#### Methods

The methods section aligns well with the STARD 2025 guidelines by providing detailed descriptions of the study population, test methods, study procedures, and statistical methods. The information is comprehensive and allows for replication and evaluation of the study's validity.

However, provide an explanation of the grouping for the three procedures under the methodology, for a clearer understanding of how the study was conducted.

**Reply: None.**

#### Results

The results section is well-aligned with STARD 2025 guidelines. It provides clear and comprehensive details on diagnostic accuracy, statistical analysis, and interpretation of results. Tables and figures support the findings, making the data presentation robust and reliable.

#### Discussion

The discussion summarises key findings with thorough interpretation of findings, implications for clinical practice and acknowledges limitations.

However, comparison with existing literature is limited.

**Reply: None.**

#### Conclusion

The conclusion provides a detailed interpretation of the result as well as clinical relevance of the study.