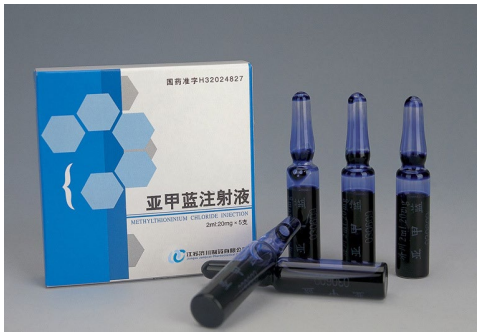
Cite this as: Qiuhui YANG, Yeqin FU, Jiaxuan WANG, Hongjian YANG, Xiping ZHANG. Advantages of contrast-enhanced ultrasound in the localization and diagnostics of sentinel lymph nodes in breast cancer[J]. Journal of Zhejiang University Science B, 2023, 24(11): 985-997.
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Advantages of contrast-enhanced ultrasound in the localization and diagnostics of sentinel lymph nodes in breast cancer

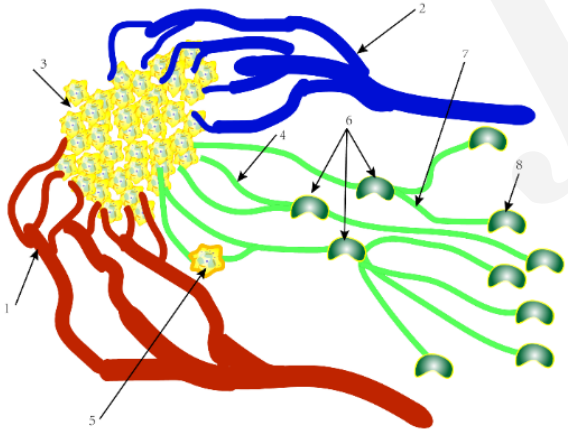
Key words: Breast cancer; Sentinel lymph node (SLN); Contrast-enhanced ultrasound (CEUS); Ultrasound contrast agent (UCA)

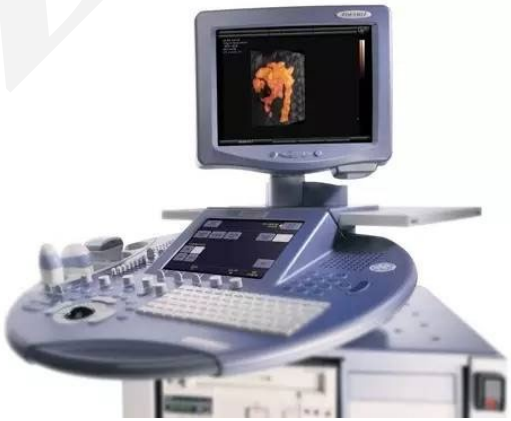
Research Summary

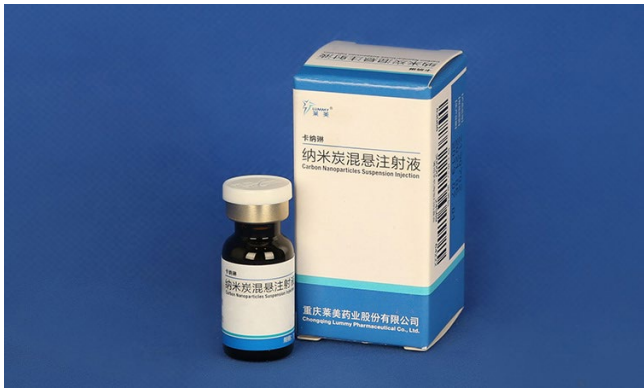
This review mainly focused on the advantages of contrast-enhanced ultrasound in the localization and diagnostics of sentinel lymph node in breast cancer: mainly from the following aspects.



- **The significance of effective SLN identification**
- **The tracers used to find SLNs**
- **The role of CEUS in breast cancer**
- **The injection methods of ultrasound contrast agents**
- **Exploration of the optimal injection dose for CEUS**







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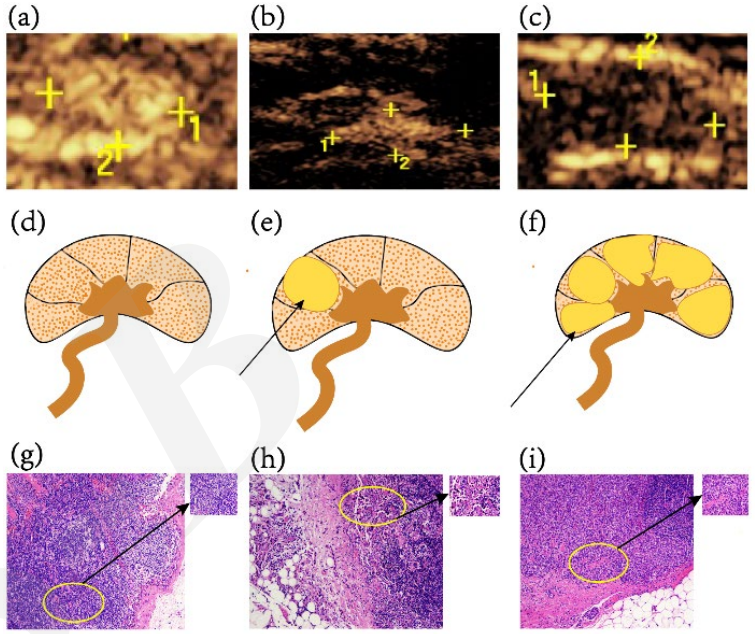
Innovation points

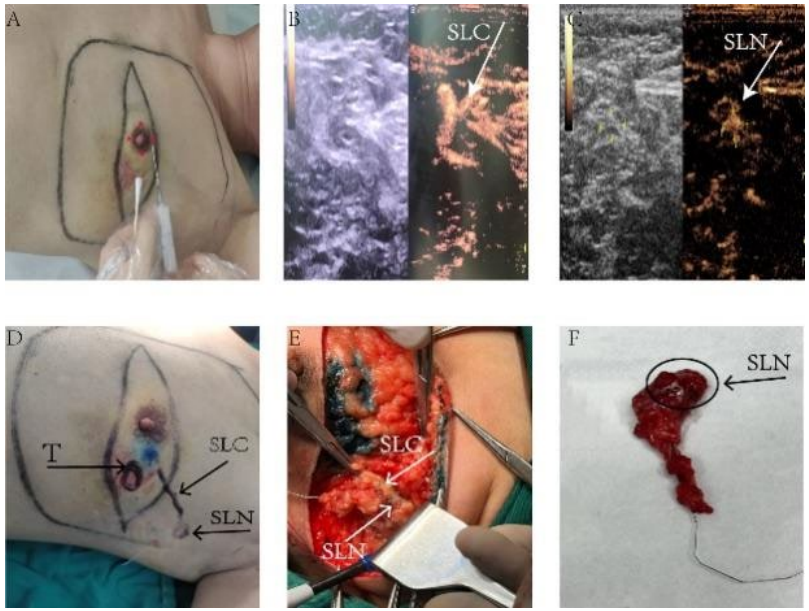
- **Introduction** of the development history of CEUS technology

- **Summary** of the role of CEUS in breast Sentinel lymph node tracing in recent years

- **Introduction** of the role of CEUS in determining benign and malignant lymph nodes

- **Comparation** of the effects of different injection methods and doses on Sentinel lymph node tracing.





Innovation points

A series of comprehensive tables were generated to summarize the latest knowledge about CEUS.

Table 1 | The deficiencies of different contrast agents.

Table 2 | The role of CEUS in the recognition of SLNs in breast cancer.

Table 3 | The role of CEUS in the identification of breast tumors.

Table 4 | Effects of different injection methods on SLNs.

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