



Super Resolution Vascular Ultrasound Imaging for Clinical Diagnostics



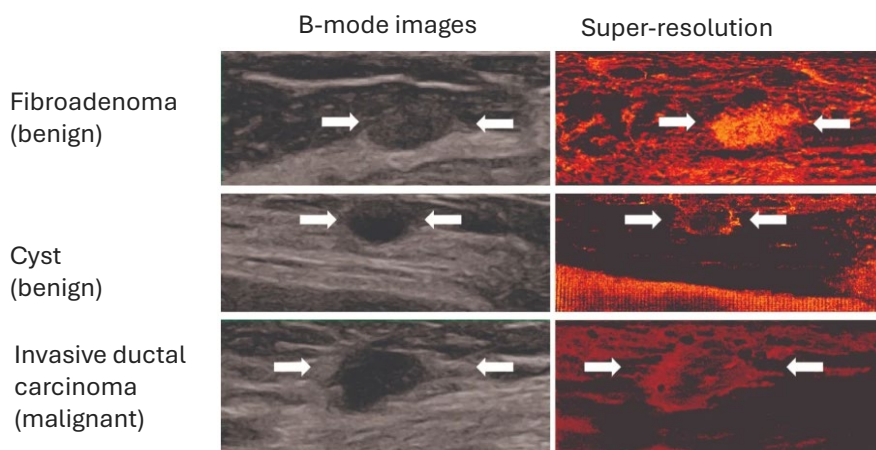
Software &
Algorithms



MedTech &
Digital Health

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An advanced deep-learning method for analyzing super-resolution Ultrasound Localization Microscopy (ULM) data to quickly and accurately reconstruct microvasculature structures, without needing prior knowledge of the system's characteristics. This enables improved US imaging for early diagnosis and clinical management of various diseases, including breast cancer and Crohn's disease.



Comparison of conventional B-mode and super-resolution US images of three breast lesions

APPLICATIONS

- Microvascular imaging using super-resolution US for clinical use
- Distinction between different types of breast tumors
- Early diagnosis and monitoring of various diseases characterized by microvasculature alterations

DEVELOPMENT STAGE

The method has been clinically validated in breast cancer patients and is being further tested for other applications.

DIFFERENTIATION



Fast
Analysis



Radiation
free



Cost
effective



Accessible



No prior knowledge of
system parameters
(PSF or UCAs) required

REFERENCES

Bar-Shira, O. et al. MICCAI, 2021

