



## RESEARCH TOPIC DASMEN3

# Contrast-Enhanced Spectral Mammography in Women With Personal History of Breast Cancer Curriculum DASMEN Clinical

### Laboratory name and address

Diagnostic Imaging Laboratory, Humanitas University

### Clinical Supervisor

Arturo Chiti

[arturo.chiti@hunimed.eu](mailto:arturo.chiti@hunimed.eu)

Daniela Bernardi

[daniela.bernardi@humanitas.it](mailto:daniela.bernardi@humanitas.it)

### Research Supervisor

Rosanna Asselta

[rosanna.asselta@hunimed.eu](mailto:rosanna.asselta@hunimed.eu)

### Abstract

Women with a previous breast cancer (BC) history should be considered an important and consistent subset of women with an intermediate BC risk.

Surveillance by mammography is associated with a 17–28% absolute reduction in breast cancer mortality even if the method is about 10% less sensitivity in women with personal history of BC than in women without.

The aim of this prospective intra-individual study is to evaluate the performance of CESM in the surveillance of women with personal history of breast cancer.

Considering a rate of loco-regional recurrences within 5 years of 6.5% and assuming 80% of statistical power and 5% of alpha error, 778 women need to be enrolled.

Differences in diagnostic parameters between the modalities will be tested for statistical significance using the McNemar test for paired data. ROC curves will be constructed for the imaging modalities ordering the BI-RADS categories to obtain an ordinal scale: 1, 2, 3, 4, and 5. AUCs with corresponding 95% CIs will be calculated.

### Main technical approaches

- Image data collection and analyses.
- Image recognition
- Machine learning

### Scientific references

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### Type of contract

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