

Contrast-Enhanced Mammography (CEM) compared to Breast Magnetic Resonance (MRI) in the evaluation of breast lobular neoplasia.

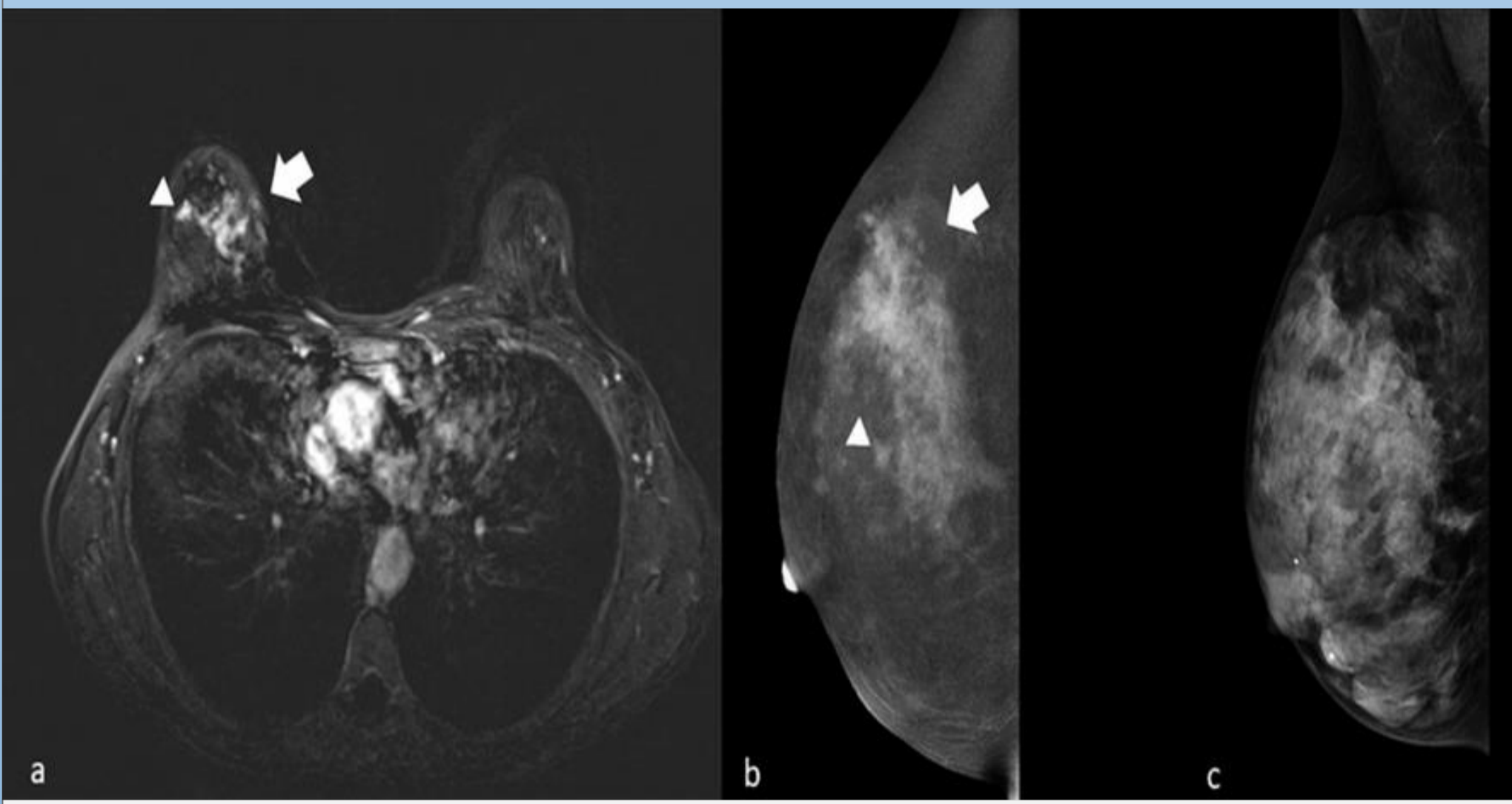


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AIM

With this study, we aimed to compare the diagnostic performance of CEM versus Full Field Digital Mammography (FFDM), Breast Ultrasound (US), and Breast MRI in the study of lobular neoplasms. It is particularly intended to compare the ability of CEM and breast MRI in the assessment of correct disease extent and multifocality/centricity of the disease.

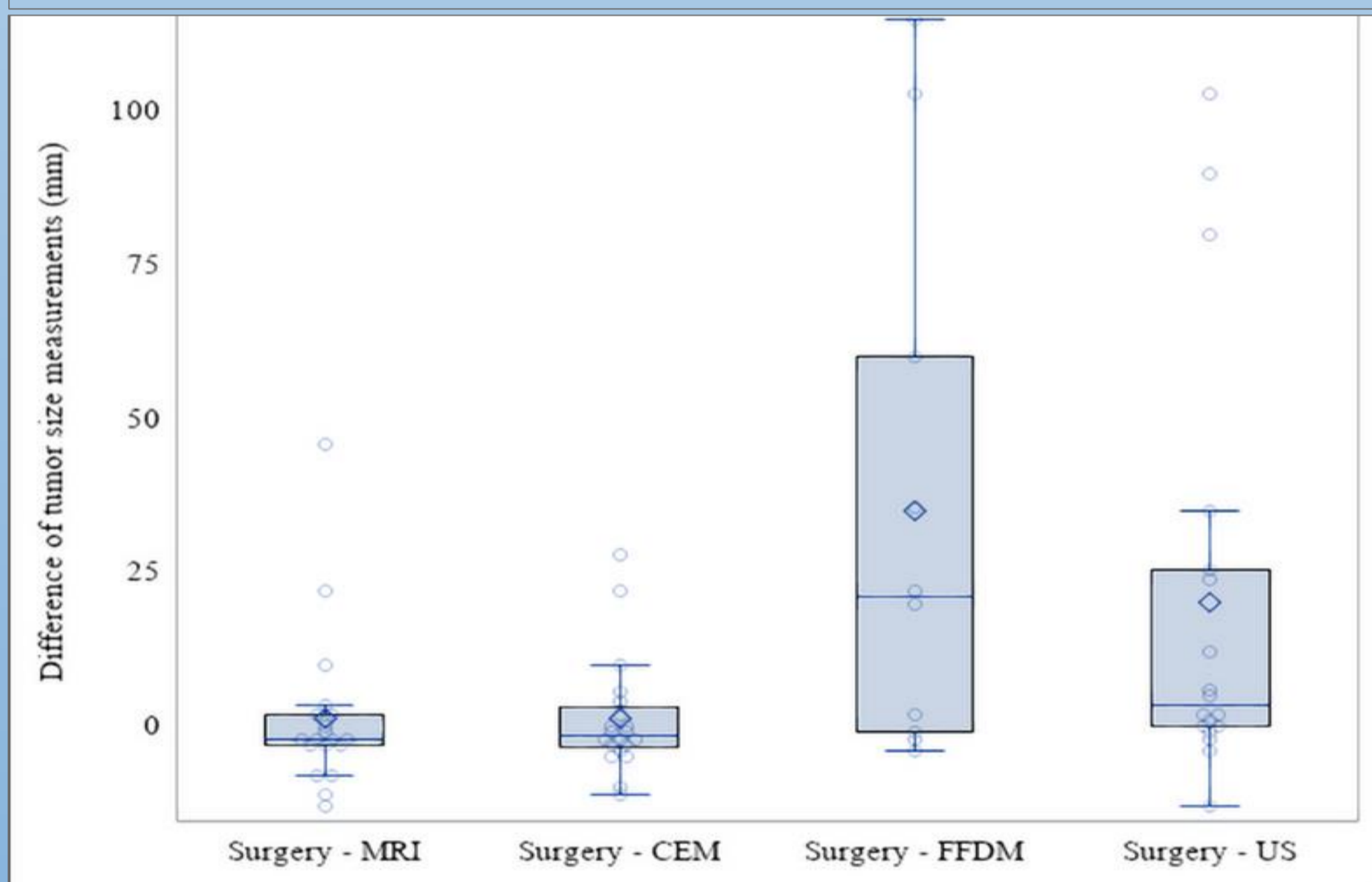


METHODS

We retrospectively selected all the patients who underwent surgery for a lobular breast neoplasm, either an in situ or an invasive tumor, and had undergone both breast CEM and MRI examinations during the pre-surgical planning. Wilcoxon Signed Rank test was performed to assess the differences between size measurements using the different methods and the post-surgical pathological measurements, considered the gold standard. The agreement in identifying multifocality/multicentricity among the different methods and the pathology was assessed using the Kappa statistics.

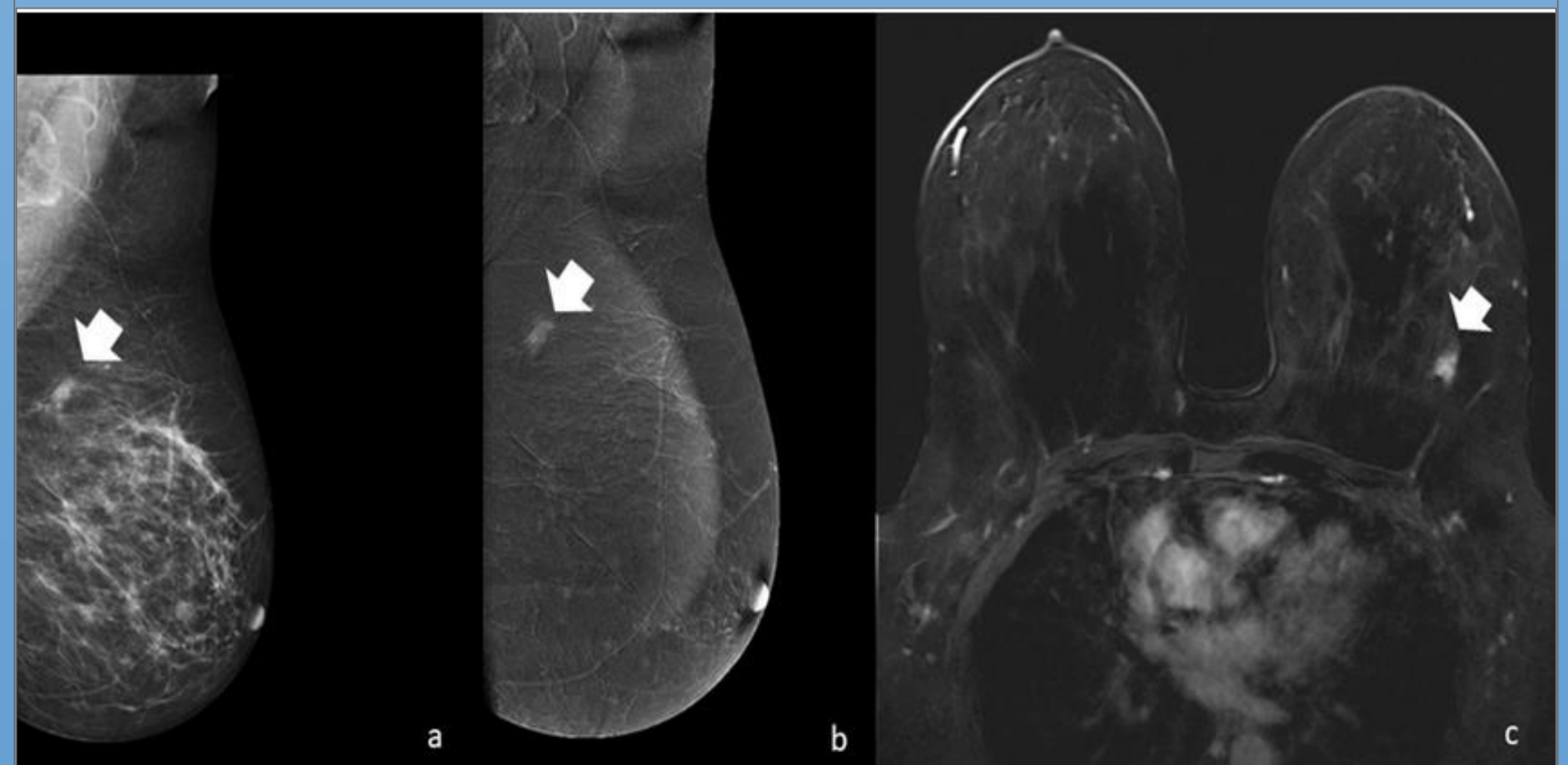
RESULTS

The images of 19 patients were analyzed, for a total of 52 malignant breast lesions. We found no significant differences between the post-surgical pathological size of the lesions and the calculated size with CEM and MRI (p-value of the difference respectively 0.71 and 0.47). In all cases, neoplasm detection was possible both with CEM and MRI. CEM and MRI showed an excellent ability to identify multifocal and multicentric cases (K statistic equal to 0.93 for both the procedures), while K statistic was 0.11 and 0.59 for FFDM and US, respectively.



CONCLUSION

CEM is a reliable imaging technique in the preoperative setting of patients with lobular neoplasm, with comparable results to breast MRI.



REFERENCES

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