Gibbs et al. [12] have reported diagnostic accuracy of 74\% (0.74 ± 0.08) for exchange rate constant in the evaluation of subcentimeter size breast lesions in 43 women. There were in 15 subcentimeter lesions (6 malignant and 9 benign) identified on high temporal resolution series in our study, and we did not find any consistency in the results. Moreover, 12 subcentimeter lesions which were identified on the subtracted image of high spatial resolution series were not identified on the high temporal resolution series. Hence, the reliability for detection as well as characterization of subcentimeter lesions in early dynamic analysis with inherent poor spatial resolution remains questionable. Further studies are needed before the high spatial resolution images could be entirely excluded from the protocol for purpose of breast cancer screening.

Conclusion

Our study concludes that early dynamic study can be included in routine DCE-MRI protocol to derive a reliable quantitative parameter (transfer constant, \( K^{\text{trans}} \)) for better characterization of benign and malignant breast lesions.

Acknowledgment

The study was funded by Department of Science and Technology, Government of India, No. IDP/MED/01/2009 (General) dated 22.01.2010. We thank Mr. Pradeep Negi for his help in data compilation in the study.

References


ADDENDUM

Soft tissue attenuation in middle ear on HRCT: Pictorial review

Year: 2012 | Volume: 22 | Issue: 4 | Page: 298-304

The authors would like to acknowledge with gratitude Dr Anagha Joshi, LTM medical college, for the images 1 to 4 and 7.