

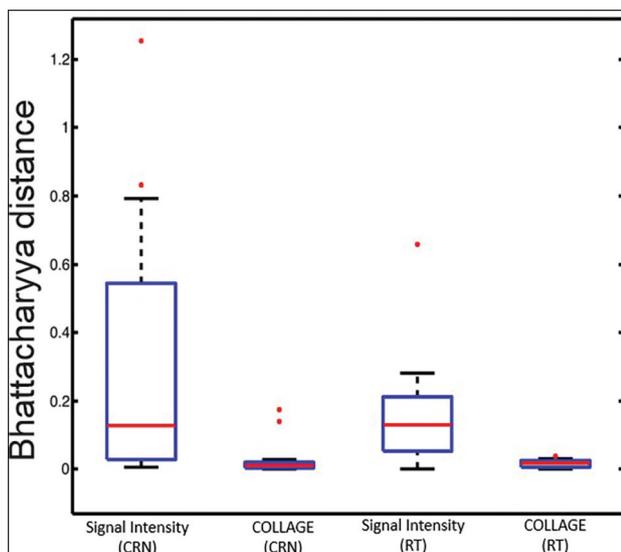
ON-LINE APPENDIX

Effect of the Acquisition Site on COLLAGE Features

To evaluate the effect of COLLAGE features across changes in MR imaging acquisition parameters, we devised the following experiment: One randomly identified CRN and RT case from site 1 was first chosen as a template case for CRN and RT, respectively. COLLAGE entropy features were then calculated for all the cases from sites 1 and 3. Interhistogram distances using the Bhattacharyya distance were computed among features for every study within each pathologic group (CRN or RT, irrespective of the

grade) and the corresponding CRN or RT template. We compared the Bhattacharyya distances for COLLAGE features as well as raw T1WI intensities for the CRN and RT groups. The mean Bhattacharyya distance for each of the categories is shown in the On-line Figure.

As may be observed from the On-line Figure, the Bhattacharyya distance using the COLLAGE features is lower, with a very small SD, for both the CRN and RT groups, compared with the signal intensities. Our preliminary analysis seems to suggest that COLLAGE may be more robust to changes in acquisition settings compared with raw signal intensities.



ON-LINE FIGURE. Interhistogram T1WI intensity and COLLAGE distances in different grades of CRN across different sites.