ON-LINE APPENDIX

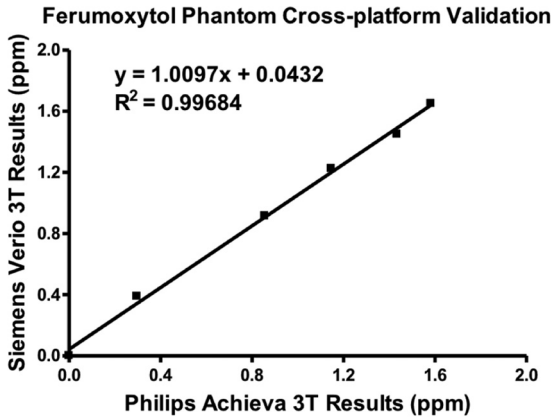
Interscanner Platform Calibration and Validation

QSM measurements on the Philips Achieva and Siemens Verio platforms were cross-validated by using a ferumoxytol phantom (see Tan et al[1] for details). The QSM imaging protocols were identical to those used clinically. The purpose of this phantom experiment was to ensure that no bias was introduced when combining data from both platforms for analysis.

Susceptibility values in the ferumoxytol phantom were calculated and compared between the 2 platforms by using ROIs. Quantitative results from both platforms were correlated by using linear regression.

Cross-Platform Validation Results

The ferumoxytol phantom result is shown in the On-line Fig. QSM was able to clearly differentiate various feruxmoytol concentrations with the data acquired on both Siemens and Philips 3T platforms. A strong positive correlation was found between the measurements made in Siemens and Philips platforms with a correlation coefficient of 0.998 ($P < .01$, $R^2 > 0.99$). This result provided confidence that QSM produced comparable measurements across those 2 instruments. The comparable results between the 2 hardware platforms supported the feasibility of multicentered trials by using QSM as an outcome measure.



ON-LINE FIG. Cross-platform validation between Siemens Verio and Philips Achieva systems by using a ferumoxytol phantom.

REFERENCE

1. Tan H, Liu T, Wu Y, et al **Evaluation of iron content in human cerebral cavernous malformation by using quantitative susceptibility mapping.** *Invest Radiol* 2014;49:498–504