Abstract:

Magnetic resonance elastography (MRE) is a technique for non-invasive characterization of tissue stiffness and is currently used clinically for the diagnosis and staging of liver fibrosis and cirrhosis. Different MRE sequences are needed to fill various roles clinically such as Spin-Echo EPI for patients with iron overload, or rapid sequences for patients who cannot execute long breath holds. In this study we compared three different MRE sequences at 1.5T and 3T both in phantoms and in vivo. The purpose of this study was to compare the mean stiffness, variance, and presence of artifacts between the different sequences and field strengths.