

Figure S1: Definition of para-axial real-time MRI of LES. In case of insufficient visualization of the LES in sagittal and coronal real-time MRI planes, a para-axial LES plane was established. (A) Axial and coronal HASTE planning images for the para-axial LES plane. (B) Previously acquired real-time MRI planes for optimization of the (C) para-axial plane orientation.

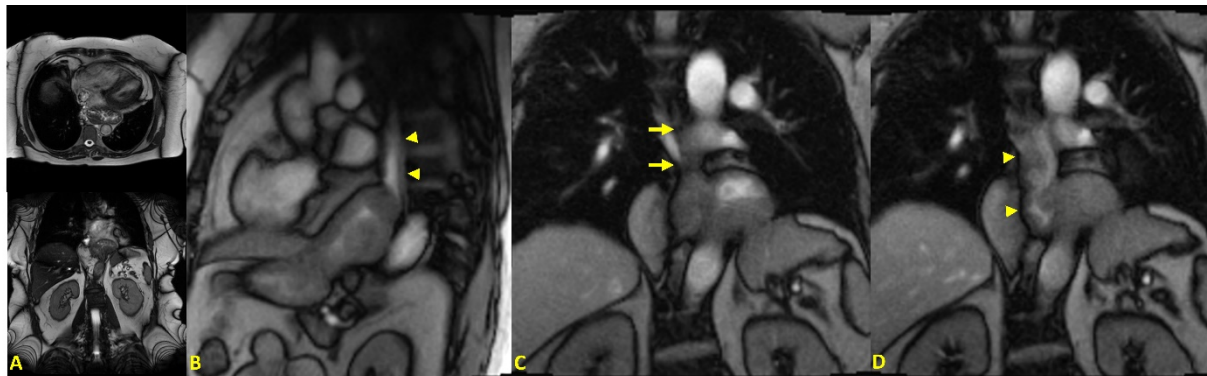


Figure S2: Visualization of the LES in a patient with challenging anatomy. (A) Axial and coronal HASTE images reveal a large hiatal hernia. (B) Due to the altered anatomy, real-time MRI depicts only a short segment of the distal esophagus during bolus transit (arrow heads). (C) In coronal planes the empty esophagus can only vaguely be recognised at rest due to partial volume effects (arrows). (D) After plane optimization employing previous real-time acquisitions the lowest segment of the esophagus and the LES could successfully be visualized during bolus transit (arrowheads).