Case Studies



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Fast, high-quality abdominal imaging with advanced deep-learning image reconstruction technology

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In bowel imaging, good spatial resolution without motion artifacts and the ability to assess loop enhancement is required for an optimal assessment of the ileocecal region to rule out suspected pathology.

Patient history

A 38-year-old patient weighing 60 kg (132 lbs) and otherwise healthy was referred for an MR exam to rule out ileitis or gastrointestinal stromal tumor (GIST) in the terminal ileum.



Figure 1. A 38-year-old patient referred to MR to rule out ileitis or GIST. The 30-ch AIR[™] AA Coil and 60-ch AIR[™] PA Coil were used. (A, B) Single-shot T2/T2 FatSat with AIR[™] Recon DL High; (C, D) axial LAVA ASPIR with AIR[™] Recon DL Medium, 1.2 x 1.2 x 2 mm, 0:17 min.; (E) coronal LAVA ASPIR with AIR[™] Recon DL Medium, 1.4 x 1.4 x 1.2 mm, 0:19 min.



Signa "Premier 3.01, MR 30 for Signa"					
	Axial LAVA	Coronal LAVA	Axial DWI	Coronal T2	Axial T2 FatSat
TR (ms):	3.3	303	5591	1439	1123
TE (ms):	1.5	1.5	59	91	75
FOV (cm):	36	40	36	40	36
Slice thickness (mm):	4	2.4	4	4	4
Frequency:	288	288	90	512	416
Phase:	288	288	120	320	320
NEX:	1	1	1	1	1
Scan time (min.):	0:23	0:21	2:53	0:32	1:30

Results

No findings, neither ileitis nor GIST.

Discussion

By ruling out the pathology of ileitis or GIST, the patient was able to continue with a normal life.

With the AIR[™] Coils, we achieved a high level of signal in the entire region of interest and improved patient comfort during the examination, making the patient more cooperative. With AIR™

Recon DL in all sequences, we achieved image quality that was previously unseen, allowing us to detect even the smallest details in high resolution.

The optimal image quality improved confidence in the image, detection of pathology, and its follow-up. The addition of AIR™ Recon DL makes the SIGNA[™] Premier a preferred MR system across many types of imaging studies. S