

FOCUS-MUSE DWI outperforms MUSE and FOCUS DWIs in orbital imaging quality and staging thyroid-associated ophthalmopathy

ELECTRONIC SUPPLEMENTARY MATERIAL

Table 1. Image quality scoring criteria of qualitative parameters

Qualitative parameters	Score
Artifacts and geometric distortion	
Severe artifacts or geometric distortions that significantly impair structural representation	1
Moderate artifacts geometric distortion that partially affect structural representation	2
Mild artifacts or geometric distortion that have no impact on structural representation	3
No artifacts or geometric distortion	4
Overall image quality	
Poor image quality	1
Fair image quality	2
Good image quality	3
Excellent image quality	4
Sharpness of boundaries	
Anatomical structures are poorly delineated	1
The anatomical structure is well-defined, though with blurred edges	2
The anatomical structures are well visualized, with slightly blurred edges	3
The anatomy is distinctly clear, with sharp delineation of edges	4

Table 2. Comparisons of ADC values and nADC values between left and right eyes of TAO patients.

	Right eyes	Left eyes	P
ADC values			
FOCUS-MUSE			
medial EOM	1.37±0.18	1.34±0.19	0.344
inferior EOM	1.43±0.18	1.40±0.19	0.352
lateral EOM	1.49±0.17	1.46±0.18	0.300
superior EOM	1.42 (1.38, 1.47)	1.43±0.11	0.855
MUSE			
medial EOM	1.49±0.19	1.47±0.19	0.483
inferior EOM	1.57±0.19	1.52±0.18	0.149
lateral EOM	1.65±0.18	1.55±0.20	0.003
superior EOM	1.51±0.16	1.42 (1.36, 1.54)	0.066
FOCUS			
medial EOM	1.44±0.18	1.43±0.16	0.698
inferior EOM	1.52±0.21	1.46±0.20	0.148
lateral EOM	1.59±0.18	1.51±0.23	0.041
superior EOM	1.47±0.18	1.42±0.17	0.115
nADC values			
FOCUS-MUSE			
medial EOM	1.03±0.15	1.03±0.15	0.852
inferior EOM	1.05 (0.99, 1.15)	1.08 (0.99, 1.16)	0.970
lateral EOM	1.12 (1.03, 1.18)	1.13±0.15	0.920
superior EOM	1.07 (1.00, 1.14)	1.11±0.11	0.124
mean nADC	1.08 (1.01, 1.13)	1.07 (1.01, 1.13)	0.959
MUSE			
medial EOM	1.06±0.11	1.05±0.12	0.704
inferior EOM	1.11±0.12	1.09±0.12	0.264
lateral EOM	1.17±0.12	1.11±0.14	0.006
superior EOM	1.07±0.10	1.05±0.09	0.213
mean nADC	1.10±0.09	1.08±0.09	0.062
FOCUS			
medial EOM	1.04±0.14	1.06±0.14	0.513
inferior EOM	1.09±0.16	1.08±0.17	0.690
lateral EOM	1.15±0.16	1.11±0.17	0.279
superior EOM	1.08 (0.97, 1.13)	1.05±0.15	0.931
mean nADC	1.08±0.13	1.07±0.13	0.671

The unit of ADC values: $\times 10^{-3}\text{mm}^2/\text{sec}$.

ADC, apparent diffusion coefficient; nADC, normalized apparent diffusion coefficient; TAO, thyroid-associated ophthalmopathy; EOM, extraocular muscle.