

**Supplementary Table 2.** Comparison of the AC, IQR/median, and CV between UGAP\_6 and UGAP\_12 according to hepatic fibrosis, BMI, and SCD

Parameter	UGAP_6	UGAP_12	P-value
<b>AC</b>			
<b>Hepatic fibrosis</b>			
<F2 (n=108)	0.722±0.120	0.724±0.116	0.187
≥F2 (n=52)	0.751±0.107	0.752±0.105	0.557
<b>BMI</b>			
<25.0 kg/m <sup>2</sup> (n=50)	0.655±0.100	0.658±0.099	0.270
25.0–30.0 kg/m <sup>2</sup> (n=78)	0.745±0.104	0.758±0.100	0.323
>30.0 kg/m <sup>2</sup> (n=27)	0.817±0.094	0.817±0.087	0.898
<b>SCD</b>			
<25 mm (n=114)	0.714±0.115	0.716±0.112	0.265
≥25 mm (n=46)	0.772±0.110	0.776±0.105	0.385
<b>IQR/median (%)</b>			
<b>Hepatic fibrosis</b>			
<F2 (n=108)	8.9±5.9	9.5±4.5	0.215
≥F2 (n=52)	8.9±6.2	10.4±6.4	0.042
<b>BMI</b>			
<25.0 kg/m <sup>2</sup> (n=50)	10.6±6.4	11.6±6.8	0.243
25.0–30.0 kg/m <sup>2</sup> (n=78)	8.9±6.0	9.6±4.1	0.168
>30.0 kg/m <sup>2</sup> (n=27)	5.9±3.5	7.4±3.3	0.060
<b>SCD</b>			
<25 mm (n=114)	9.0±5.8	9.9±5.6	0.043
≥25 mm (n=46)	8.7±6.4	9.5±3.8	0.320
<b>CV (%)</b>			
<b>Hepatic fibrosis</b>			
<F2 (n=108)	7.5±3.6	10.7±29.5	0.264
≥F2 (n=52)	11.9±31.1	13.7±41.5	0.225
<b>BMI</b>			
<25.0 kg/m <sup>2</sup> (n=50)	9.0±3.9	9.5±4.6	0.293
25.0–30.0 kg/m <sup>2</sup> (n=78)	7.2±3.7	11.5±34.7	0.280
>30.0 kg/m <sup>2</sup> (n=27)	13.6±43.3	16.9±57.8	0.245
<b>SCD</b>			
<25 mm (n=114)	7.6±3.7	8.1±3.9	0.038
≥25 mm (n=46)	12.3±33.0	20.7±62.3	0.224

AC, attenuation coefficient; IQR, interquartile range; CV, coefficient of variation; UGAP, ultrasound-guided attenuation parameter; UGAP\_6, 6-repeated measurements obtaining 6 attenuation coefficients using UGAP; UGAP\_12, 12-repeated measurements obtaining 12 attenuation coefficients using UGAP; BMI, body mass index; SCD, skin-to-capsule distance.

**Supplementary Table 3.** Pearson correlation coefficients (r) between UGAP and CAP

	r	Confidence interval	P-value
UGAP_3 and CAP	0.625	0.521–0.711	<0.001
UGAP_9 and CAP	0.683	0.591–0.758	<0.001

UGAP, ultrasound-guided attenuation parameter; CAP, controlled attenuation parameter; UGAP\_3, 3-repeated measurements obtaining 3 attenuation coefficients using UGAP; UGAP\_9, 9-repeated measurements obtaining 9 attenuation coefficients using UGAP.

**Supplementary Table 4.** Diagnostic performance of UGAP for hepatic steatosis staging

	S≥1	S≥2	S=3
<b>UGAP_3</b>			
AUROC	0.859	0.874	0.810
95% CI	0.795–0.909	0.813–0.921	0.740–0.867
Cutoff value	0.67	0.67	0.70
Sensitivity (%)	70.8	78.2	71.6
Specificity (%)	93.8	83.3	82.8
<b>UGAP_6</b>			
AUROC	0.908	0.883	0.832
95% CI	0.852–0.948	0.823–0.928	0.764–0.886
Cutoff value	0.667	0.665	0.665
Sensitivity (%)	77.8	82.3	88.2
Specificity (%)	93.7	80.6	67.2
<b>UGAP_9</b>			
AUROC	0.908	0.887	0.837
95% CI	0.852–0.948	0.828–0.932	0.770–0.890
Cutoff value	0.66	0.67	0.66
Sensitivity (%)	76.4	80.7	89.2
Specificity (%)	93.8	86.1	65.5
<b>UGAP_12</b>			
AUROC	0.897	0.897	0.834
95% CI	0.839–0.940	0.839–0.940	0.767–0.888
Cutoff value	0.665	0.67	0.7
Sensitivity (%)	76.4	82.3	77.5
Specificity (%)	87.5	83.3	75.9
P-value <sup>a)</sup> (3 vs. 6)	0.035	0.687	0.255
P-value <sup>b)</sup> (3 vs. 9)	0.042	0.509	0.136
P-value <sup>c)</sup> (3 vs. 12)	0.092	0.178	0.133
P-value <sup>d)</sup> (6 vs. 9)	0.728	0.448	0.282
P-value <sup>e)</sup> (6 vs. 12)	0.579	0.078	0.472
P-value <sup>f)</sup> (9 vs. 12)	0.321	0.248	0.726

UGAP, ultrasound-guided attenuation parameter; UGAP\_3, 3-repeated measurements obtaining 3 attenuation coefficients using UGAP; AUROC, area under the receiver operating characteristic curve; CI, confidence interval; UGAP\_6, 6-repeated measurements obtaining 6 attenuation coefficients using UGAP; UGAP\_9, 9-repeated measurements obtaining 9 attenuation coefficients using UGAP; UGAP\_12, 12-repeated measurements obtaining 12 attenuation coefficients using UGAP.

<sup>a)</sup>Comparison of AUROC between UGAP\_3 and UGAP\_6. <sup>b)</sup>Comparison of AUROC between UGAP\_3 and UGAP\_9. <sup>c)</sup>Comparison of AUROC between UGAP\_3 and UGAP\_12. <sup>d)</sup>Comparison of AUROC between UGAP\_6 and UGAP\_9. <sup>e)</sup>Comparison of AUROC between UGAP\_6 and UGAP\_12. <sup>f)</sup>Comparison of AUROC between UGAP\_9 and UGAP\_12.