## Supplementary Table 1. Pathologic diagnosis of tumor

Pathologic diagnosis	No. (%)
Hepatocellular carcinoma	87 (72.5)
Metastases from colorectal cancer	14 (11.7)
Combined hepatocellular carcinoma-cholangiocarcinoma	7 (5.8)
Cholangiocarcinoma	6 (5.0)
Inflammatory pseudotumors	3 (2.5)
Intrahepatic reactive lymphoid hyperplasia	1 (0.8)
Hemangioma	1 (0.8)
Mucinous cystic neoplasm	1 (0.8)

## Supplementary Table 2. Comparison between each group of different degrees of hepatic steatosis by using quantitative imaging tools

Hepatic	СТ			MRI-PDFF			CAP			ATI		
steatosis	5-33%	33-66%	>66%	5-33%	33-66%	>66%	5-33%	33-66%	>66%	5-33%	33-66%	>66%
<5%	< 0.001	<0.001	0.017	< 0.001	<0.001	0.017	< 0.001	<0.001	0.017	< 0.001	< 0.001	0.017
5-33%		< 0.001	0.017		< 0.001	0.017		0.002	0.029		0.001	0.019
>33-66%			0.026			0.026			0.080			0.038

CT, computed tomography; MRI-PDFF, magnetic resonance imaging-derived proton density fat fraction; CAP, controlled attenuation parameter; ATI, attenuation imaging.

## Supplementary Table 3. Diagnostic performance of imaging tools for detecting HS $\geq$ 10%

Imaging tool	AUC	Cutoff value	Sensitivity (%)	Specificity (%)	Accuracy (%)	PPV (%)	NPV (%)
CT	0.829	≤4	72.7 (32/44)	86.8 (66/76)	81.7 (98/120)	76.2 (32/42)	84.6 (66/78)
	[0.750-0.892]		[57.2-85.0]	[77.1–93.5]	[66.3-99.5]	[63.6-85.4]	[77.1-90.0]
MRI-PDFF	0.945	>4	97.7 (43/44)	86.8 (66/76)	90.8 (109/120)	81.1 (43/53)	98.5 (66/67)
	[0.887-0.978]		[88.0-99.9]	[77.1–93.5]	[74.6-100.0]	[70.0-88.5]	[90.5-99.8]
CAP	0.856	>248	76.5 (35/44)	86.8 (66/76)	84.2 (101/120)	77.8 (35/45)	88.0 (66/75)
	[0.781-0.914]		[65.0-90.2]	[77.1–93.5]	[68.6-100.0]	[65.8-86.4]	[80.3-93.0]
Grayscale US	0.807	≥mild HS	81.8 (36/44)	72.4 (55/76)	75.8 (91/120)	63.2 (36/57)	87.3 (55/76)
	[0.725-0.873]		[67.3-91.8]	[60.9-82.0]	[61.1–93.1]	[53.7-71.7]	[78.3-92.9]
ATI	0.905	>0.65	84.1(37/44)	85.5 (65/76)	85.0 (102/120)	77.1 (37/48)	90.3 (65/72)
	[0.838-0.951]		[69.9-93.4]	[75.6-92.5]	[69.3-100.0]	[65.7-85.5]	[82.4-94.9]

Values are percentages, with numerators and denominators in parentheses and 95% confidence intervals in brackets.

HS, hepatic steatosis; AUC, area under the curve; PPV, positive predictive value; NPV, negative predictive value; CT, computed tomography; MRI-PDFF, magnetic resonance imaging–derived proton density fat fraction; CAP, controlled attenuation parameter; US, ultrasound; ATI, attenuation imaging.

## Supplementary Table 4. Subgroup analysis: diagnostic performance of imaging tools for detecting HS >33% in patients with HS ≥5%

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Imaging tool	AUC	Cutoff value	Sensitivity (%)	Specificity (%)	Accuracy (%)	PPV (%)	NPV (%)
CT	0.855 [0.747–0.930]	≤1	87.5 (14/16) [61.7–98.4]	78.0 (39/50) [64.0–88.5]	80.3 (53/66) [68.7–89.1]	56.0 (14/25) [42.2–68.9]	95.1 (39/41) [84.1–98.6]
MRI-PDFF	0.911 [0.815–0.967]	>8	87.5 (14/16) [61.7–98.4]	96.0 (48/50) [86.3–99.5]	93.9 (62/66) [85.2–98.3]	87.5 (14/16) [64.0–96.5]	96.0 (48/50) [86.7–98.9]
CAP	0.800 [0.683–0.888]	>250	100.0 (16/16) [79.4–100.0]	54.0 (27/50) [39.3–68.2]	65.2 (43/66) [52.4–76.5]	41.0 (16/39) [34.0–48.4]	100.0 (27/27)
Grayscale US	0.861 [0.754–0.934]	>mild HS	62.5 (10/16) [35.4–84.8]	94.0 (47/50) [83.5–98.7]	86.4 (57/66) [75.7–93.6]	76.9 (10/13) [51.1–91.4]	88.7 (47/53) [80.6–93.7]
ATI	0.829 [0.716–0.910]	>0.71	75.0 (12/16) [47.6–92.7]	82.0 (41/50) [68.6–91.4]	80.3 (53/66) [68.7–89.1]	57.1 (12/21) [40.9–72.0]	91.1 (41/45) [81.3–96.0]

Values are percentages, with numerators and denominators in parentheses and 95% confidence intervals in brackets.

HS, hepatic steatosis; AUC, area under the curve; PPV, positive predictive value; NPV, negative predictive value; CT, computed tomography; MRI-PDFF, magnetic resonance imaging–derived proton density fat fraction; CAP, controlled attenuation parameter; US, ultrasound; ATI, attenuation imaging.