

**Table SI.** Supplementary characteristics of included studies.

First author, year	Affiliated unit	Time period in which patients were included	(Refs.)
Xiang, 2014	Department of Ultrasound, Second Affiliated Hospital, Zhejiang University College of Medicine, Hangzhou City, Zhejiang Province, China	From May 2012 to January 2014	(13)
Hong, 2017	1. Department of Ultrasound, Second Affiliated Hospital, Zhejiang University College of Medicine, Hangzhou City, Zhejiang Province, China; 2. Department of Surgery, Second Affiliated Hospital, Zhejiang University College of Medicine, Hangzhou City, Zhejiang Province, China; 3. Department of Pathology, Second Affiliated Hospital, Zhejiang University College of Medicine, Hangzhou City, Zhejiang Province, China	From January 2014 to September 2016	(14)
Zhan, 2019	1. Department of Ultrasound, Zhongshan Hospital, Fudan University, Shanghai, China; 2. Department of Ultrasound, Huadong Hospital, Fudan University, Shanghai, China	From March 2016 to November 2018	(15)
Chen, 2020	Department of Ultrasound, Peking University First Hospital, Beijing, China	From February 2017 to January 2018	(16)
Wang, 2021	1. Medical Center of Ultrasound, Lanzhou University Second Hospital, Lanzhou, Gansu, P.R. China; 2. Department of Pathology, Lanzhou University Second Hospital, Lanzhou, Gansu, P.R. China	From January 2018 to November 2020	(17)
Wei, 2021	1. Department of Interventional Ultrasound Medicine, China-Japan Friendship Hospital, Beijing, China; 2. Department of Pathology, China-Japan Friendship Hospital, Beijing, China; and 3. Department of	From November 2018 to March 2019	(18)

	Ultrasound, Tumor Hospital of Mu Dan Jiang City, Mudanjiang, China		
Zhang, 2022	1. Department of General Surgery, Fujian Provincial Hospital, Fuzhou, China; 2. Department of Ultrasonography, Jingzhou City Women and Children Hospital, Jingzhou, China	From November 2015 to November 2020	(19)
Xiao, 2023	1. Departments of Ultrasound and Head and Neck Surgery, Sun Yat-sen University Cancer Center, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Guangzhou, PR China; 2. Department of Ultrasound, Sun Yat-sen University, Affiliated Hospital 8, Shenzhen, P.R. China	From October 2020 to October 2021	(20)
Zhang, 2023	1. Departments of Ultrasound and Pathology, Division of First Medical Center, Chinese People's Liberation Army General Hospital, Beijing, China; 2. Department of Ultrasound, Division of Second Medical Center, Chinese People's Liberation Army General Hospital, Beijing, China	From November 2020 to January 2021	(21)

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**Table III.** Subgroup analysis based on study types.

Items	Conventional US	CEUS	<i>P</i> value
<b>Retrospective study (n = 3)</b>			
Pooled sensitivity (95% CI)	0.74 (0.66-0.81)	0.84 (0.77-0.89)	0.041
Pooled specificity (95% CI)	0.67 (0.56-0.76)	0.71 (0.61-0.80)	0.570
AUC of SROC (SE)	0.8089 (0.7437)	0.9550 (0.0317)	0.002
<b>Prospective study (n = 6)</b>			
Pooled sensitivity (95% CI)	0.78 (0.74-0.81)	0.85 (0.82-0.88)	0.003
Pooled specificity (95% CI)	0.74 (0.69-0.78)	0.90 (0.86-0.92)	<0.001
AUC of SROC (SE)	0.8006 (0.0421)	0.9403 (0.0108)	<0.001

US, ultrasound; CEUS, contrast-enhanced ultrasound; CI, confidence interval; AUC, area under curve; SROC, summary receiver operating characteristic; SE, standard error.

**Table SIII.** Summary DOR.

First author, year	DOR (95% CI)		(Refs.)
	Conventional US	CEUS	
Xiang, 2014	6.27 (1.93-20.32)	8.10 (2.50-26.24)	(13)
Hong, 2017	18.00 (10.15-31.95)	90.12 (40.63-199.86)	(14)
Zhan, 2019	6.43 (2.23-17.47)	118.33 (6.86-2039.94)	(15)
Chen, 2020	17.29 (4.42-67.57)	66.44 (12.19-362.94)	(16)
Wang, 2021	3.84 (1.77-8.31)	9.11 (3.87-21.45)	(17)
Wei, 2021	1.57 (0.26-9.47)	37.00 (5.08-269.67)	(18)
Zhang, 2022	4.86 (2.04-11.57)	11.79 (4.15-33.46)	(19)
Xiao, 2023	5.21 (2.40-11.32)	60.92 (21.86-169.79)	(20)
Zhang, 2023	16.57 (5.34-51.40)	315.00 (33.53-2959.37)	(21)
Pooled	7.26 (4.38-12.03)	34.90 (15.06-80.85)	
P-value	0.102		

DOR, diagnostic odds ratio; US, ultrasound; CEUS, contrast-enhanced ultrasound; CI, confidence interval.

**Table SIV.** Robustness assessment.

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A, Pooled sensitivity (95% CI)			
Omitted study	Conventional US	CEUS	(Refs.)
Xiang, 2014	0.77 (0.73-0.81)	0.85 (0.82-0.88)	(13)
Hong, 2017	0.73 (0.69-0.77)	0.85 (0.81-0.88)	(14)
Zhan, 2019	0.76 (0.72-0.80)	0.87 (0.84-0.89)	(15)
Chen, 2020	0.77 (0.73-0.80)	0.85 (0.81-0.87)	(16)
Wang, 2021	0.77 (0.73-0.80)	0.85 (0.82-0.88)	(17)
Wei, 2021	0.76 (0.72-0.80)	0.84 (0.81-0.87)	(18)
Zhang, 2022	0.76 (0.72-0.80)	0.83 (0.80-0.87)	(19)
Xiao, 2023	0.81 (0.77-0.84)	0.85 (0.82-0.88)	(20)
Zhang, 2023	0.76 (0.73-0.80)	0.84 (0.81-0.87)	(21)
B, Pooled specificity (95% CI)			
Omitted study	Conventional US	CEUS	(Refs.)
Xiang, 2014	0.72 (0.68-0.76)	0.86 (0.83-0.89)	(13)
Hong, 2017	0.71 (0.66-0.76)	0.81 (0.76-0.85)	(14)
Zhan, 2019	0.73 (0.69-0.77)	0.85 (0.81-0.88)	(15)

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Chen, 2020	0.71 (0.67-0.76)	0.85 (0.82-0.89)	(16)
Wang, 2021	0.74 (0.70-0.78)	0.88 (0.85-0.91)	(17)
Wei, 2021	0.73 (0.69-0.77)	0.86 (0.82-0.89)	(18)
Zhang, 2022	0.73 (0.69-0.77)	0.88 (0.85-0.91)	(19)
Xiao, 2023	0.68 (0.63-0.73)	0.84 (0.79-0.87)	(20)
Zhang, 2023	0.87 (0.79-0.93)	0.85 (0.81-0.88)	(21)
C, AUC of SROC (SE)			
Omitted study	Conventional US	CEUS	(Refs.)
Xiang, 2014	0.8012 (0.0342)	0.9336 (0.0163)	(13)
Hong, 2017	0.7731 (0.0255)	0.9215 (0.0233)	(14)
Zhan, 2019	0.7983 (0.0343)	0.9284 (0.0195)	(15)
Chen, 2020	0.7890 (0.0341)	0.9236 (0.0202)	(16)
Wang, 2021	0.8076 (0.0315)	0.9341 (0.0159)	(17)
Wei, 2021	0.8025 (0.0290)	0.9233 (0.0185)	(18)
Zhang, 2022	0.8023 (0.0335)	0.9294 (0.0205)	(19)
Xiao, 2023	0.8489 (0.0324)	0.9281 (0.0222)	(20)
Zhang, 2023	0.7879 (0.0338)	0.9173 (0.0155)	(21)

US, ultrasound; CEUS, contrast-enhanced ultrasound; CI, confidence interval; AUC, area under curve;

SROC, summary receiver operating characteristic; SE, standard error.