

Supplementary materials: Advanced Fusion Imaging and Contrast-Enhanced Imaging (CT/MRI–CEUS) in Oncology.

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Supplemental Table S1. Included patients with focal liver lesions who underwent CT-/MRI-CEUS Fusion Imaging. B - Native B-mode, CD - Color Doppler, CEUS - Contrast-enhanced ultrasound, CE - Contrast-enhancement, US – Ultrasound, CT – computed tomography, FNH – focal nodular hyperplasia, FU – Follow-Up, HCC – hepatocellular carcinoma. MRI – magnetic resonance imaging, RFA – radiofrequency ablation.

Patient Number	Age	Sex	Size (cm)	Liver Segment	CT findings	MRI findings	Native B-mode, Color Doppler, CEUS	Fusion Imaging	Treatment / FU	Histopathology
1	67	F	1.6	4B	-	Indeterminate	B/CD/CEUS: No specific correlation	Vascular pseudolesion	-	-
2	81	F	4.5	Multiple	-	Indeterminate cystic lesions	B: hypoechoic CD: - CEUS: -	Uncomplicated cystic lesions	-	-
3	46	F	0.7	8	-	Indeterminate, hypervascularized lesion	No correlation due to steatosis hepatis	B: Ill-defined CD: No hypervascularization, CEUS: Central-to-peripheral CE → FNH	-	-
4	17	F	0,7	7	-	Suspicious lesion	B: isoechoic CD: - CEUS: -	Uncomplicated cystic lesion	-	-
5	27	F	1.0	2	-	Suspicious lesion	No specific correlation	B: Ill-defined, inhomogeneous, hypoechoic, CD: - CEUS: - → No malignancy	Segmental liver resection II/III	No malignancy
6	80	M	3.5	4/8	-	Complicated cyst	B: inhomogeneous, predominantly hypoechoic CD: - CEUS: -	Hemorrhagic liver cyst	-	-
7	51	F	0.9	5	Indeterminate	-	B: hyperechoic CD: - CEUS: perinodular CE, centripetal filling	Hemangioma	-	-
8	70	M	0.8	2	Indeterminate	-	B: hypoechoic CD: - CEUS: -	Uncomplicated liver cyst	-	-
9	48	F	0.8	7	-	Suspicious lesion	Massive steatosis hepatis	No correlation	-	-

							CEUS: perinodular CE, centripetal filling			
30	46	F	3.4	6	-	Indeterminate	B: hyperechoic CD: -, CEUS: Central-to-peripheral CE → FNH	FNH	-	-
31	76	M	1.0	7	-	Suspicious lesion	B: hypoechoic CD: - CEUS: early arterial CE, wash-out	HCC	-	-
32	59	F	1.2	7	-	Suspicious lesion	B: hyperechoic CD: -, CEUS: Central-to-peripheral CE → FNH	FNH	-	-

Supplemental Table S2. Included patients with renal lesions who underwent CT-/MRI-CEUS Fusion Imaging. B - Native B-mode, CD - Color Doppler, CEUS - Contrast-enhanced ultrasound, CE - Contrast-enhancement, US – Ultrasound, CT – computed tomography, FU – Follow-Up, MRI – magnetic resonance imaging, RFA – radiofrequency ablation, RCC – Renal-cell carcinoma.

Patient Number	Age	Sex	Size (cm)	Localization	CT findings	MRI findings	Native B-mode, Color Doppler, CEUS	Fusion Imaging	Treatment / Follow-Up	Histopathology
1	79	F	2.5	R	Suspicious lesion	-	B: hyperechoic, CD: - CEUS: -	Bosniak 1	-	-
2	80	M	2.0	R	Suspicious Lesion	-	B: inhomogeneous, partially hyperechoic CD: - CEUS: early arterial CE, wash-out	Bosniak 3	Right Nephrectomy	Oncocytoma
3	76	M	2.0	R	-	Suspicious lesion	B: isoechoic, CD: - CEUS: early arterial CE wash-out	Bosniak 4	Right Nephrectomy	Chromophobe RCC
4	73	M	0.7	R	Suspicious lesion	-	B: septated, hypoechoic CD: - CEUS: -	Bosniak 2F	-	-
5	70	M	1.5	L	Uncomplicated cyst	-	B: hypoechoic, CD: -	Bosniak 1	-	-

6	53	F	3.0	R	Suspicious lesion	-	CEUS: - B: hypoechoic, CD: - CEUS: early arterial CE	Bosniak 4	-	-
7	44	M	1.0	L	Suspicious lesion	-	No specific correlation	No specific correlation	-	-
8	67	M	2.0	L	Indeterminate	-	B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
9	48	F	0.5	L	-	Indeterminate	B: hypoechoic, CD: - CEUS: early arterial enhancement	Indeterminate, benign	Nephrectomy	Angiomyolipoma
10	72	M	1.2	L	-	Indeterminate	No specific correlation	B/CD: No specific correlation, CEUS: arterial CE → Bosniak 3	No treatment due to comorbidities	-
11	78	M	1.3	R	Suspicious lesion	-	B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
12	60	M	1.5	R	Suspicious lesion	-	B: hypoechoic, CD: - CEUS: slight arterial CE	Bosniak 3	Right nephrectomy	Clear-cell RCC
13	75	M	1.2	L	Hemorrhagic renal cyst	-	B: hypoechoic, CD: - CEUS: septal arterial CE	Bosniak 2F	-	-
14	61	M	2.5	L	Suspicious lesion	-	B: inhomogeneous, hyperechoic, CD: - CEUS: early arterial CE, wash-out	Bosniak 4	Left nephrectomy	Clear-cell RCC
15	66	F	0.7	L	Suspicious Lesion	-	B: hypoechoic, multiple septations, CD: - CEUS: septal + nodular arterial CE	Bosniak 4	Left nephrectomy	Clear-cell RCC
16	70	M	1.0	L	Suspicious lesion	-	No specific correlation	B: hypoechoic, CD: - CEUS: -	-	-

								→ Bosniak 1			
17	47	F	3.5	L	-	Suspicious lesion	-	B: hyperechoic, CD: - CEUS: arterial CE	Angiomyolipoma	-	-
18	72	M	5.3	L	Hematoma	-	-	B: inhomogeneous, hyperechoic perirenal area CD: - CEUS: -	No active bleeding, renal hematoma due to derailed oral anticoagulation (warfarin)	-	-
19	80	M	3.0	R	Suspicious lesion	-	-	B: hypoechoic, CD: - CEUS: arterial CE, wash-out	Bosniak 4	Right nephrectomy	Clear-cell RCC
20	51	F	1.0	R	Suspicious lesion	-	-	B: isoechoic, CD: - CEUS: early arterial CE, wash-out	Bosniak 4	Right nephrectomy	Clear-cell RCC
21	70	M	8.0	R	Indeterminate cystic lesion	-	-	B: hypoechoic, septations, CD: -, CEUS: -	Bosniak 2F	Constant FUs	-
22	83	M	3.0	R	Suspicious lesion	-	-	B: hypoechoic, CD: -, CEUS: -	Bosniak 1	-	-
23	58	M	3.0	R	Suspicious lesion	-	-	B: hypoechoic, septations, CD: -, CEUS: -	Bosniak 2F	Right partial nephrectomy (15 months later)	Papillary RCC
24	79	M	1.6	L	Tumor recurrence (after partial nephrectomy due to clear-cell RCC)	-	-	B: hypoechoic, inhomogeneous, CD: - CEUS: early arterial CE, wash-out	Tumor recurrence (RCC)	-	-
25	50	F	1.5	R	-	Parenchymal defect after Cyberknife treatment of clear-cell RCC	-	B: isoechoic, rounded, CD: - CEUS: -	Parenchymal defect after Cyberknife treatment of clear-cell RCC	-	-
26	58	F	2.0	R	Indeterminate	-	-	B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
27	51	M	1.6	L	Renal infarction	-	-	B: hypoechoic, patchy	Renal infarction	-	-

								CD: - CEUS: -			
28	87	M	0.7	R	Indeterminate	-		B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
29	56	M	1.8	L	Suspicious lesion	-		B: inhomogeneous, solid components, CD: -, CEUS: early arterial CE, wash-out	Bosniak 4	Left partial nephrectomy	Papillary RCC
30	53	M	3.4	L	-	Indeterminate		B: hypoechoic, septations, CD: - CEUS: marginal + septal CE	Bosniak 2F	Constant in long-term FUs	-
31	64	F	3.5	R	Indeterminate	-		B: hypoechoic, septations, CD: - CEUS: dim septal + CE	Bosniak 2F	Partial right nephrectomy	No malignancy
32	71	M	4.5	L	Indeterminate	-		B: hypoechoic, septations, CD: - CEUS: dim septal CE	Bosniak 2F	Constant long- term FUs	-
33	53	M	1.2	L	Indeterminate	-		B: inhomogeneous, partially hyperechoic, CD: - CEUS: -	Bosniak 2F	Constant long- term FUs	-
34	56	M	2.5	R	Indeterminate	-		B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
35	73	F	1.0	R	Suspicious lesion	-		B: mainly hypoechoic, inhomogeneous, CD: - CEUS:	Bosniak 2	Right partial nephrectomy	Angiomyolipoma
36	54	M	3.0	L	-	Suspicious lesion		B: hypoechoic, inhomogeneous, mural thickening, CD: -	Bosniak 3	Nephrectomy	Chromophobe RCC

							CEUS: marginal + septal CE			
37	66	M	5.0	L	Suspicious lesion	-	B: hypoechoic, CD: - CEUS: marginal + nodular CE	Bosniak 4	Nephrectomy	Papillary RCC
38	62	M	1.6	R	Hemorrhagic renal cyst	-	B: hypoechoic, CD: - CEUS: -	Bosniak 1	-	-
39	64	F	1.8	L	Uncomplicated renal cyst	-	B: inhomogeneous, mainly hypoechoic, CD: - CEUS: arterial central CE	Bosniak 3	-	-
40	61	M	1.5	R	Indeterminate	-	B: hyperechoic, CD: - CEUS: early arterial CE	Inflamed morphology in the context of pyelonephritis	Nephrectomy	No malignancy, pyelonephritis
41	68	F	2.0	R	Suspicious lesion	-	B: hypoechoic, CD: - CEUS: early arterial CE	Bosniak 3	No FU (palliative)	-
42	70	F	1.1	R	Indeterminate	-	B: hypoechoic, septations, CD: - CEUS: -	Bosniak 2F	-	-
43	68	F	7.5	L	-	Suspicious lesion	B: hypoechoic, septations, CD: - CEUS: dim septal CE	Bosniak 2F	-	-
44	68	F	1.7	L	Indeterminate	-	B: hypoechoic, septations CD: - CEUS: -	Bosniak 2F	Constant long-term FU	-
45	44	M	3.0	R	-	Indeterminate	B: hypoechoic, septations, CD: - CEUS: -	Bosniak 2F	-	-
46	68	M	0.8	L	Suspicious lesion	-	B: hypoechoic, inhomogeneous,	Bosniak 2	-	-

								→ Bosniak 4			
57	62	M	2.0	R	-	Suspicious lesion	B: hypoechoic, septations CD: - CEUS: dim arterial septal CE	Bosniak 3	Right nephrectomy	Papillary RCC	
58	53	M	1.3	R	-	Indeterminate	B: cortical retraction, CD: - CEUS: corresponding lack of CE	Renal infarction	-	-	
59	31	F	1.4	L	-	Angiomyolipoma	B: hypoechoic, CD: hypervascularized CEUS: early arterial CE, wash-out	Angiomyolipoma at 26th week of pregnancy	Biopsy, constant during FUs	Angiomyolipoma	
60	56	M	1.2	R	Suspicious lesion	-	B: hypoechoic, CD: - CEUS: early arterial CE, wash-out	Bosniak 4	Right partial nephrectomy	Clear-cell RCC	



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