

**Supplementary Table 1.** Responses to questions about transarterial chemoembolization (TACE) refractoriness

Question	Answer	No.	High-volume centers (n=42)			Centers in metropolitan (n=120)		
			Yes	No	P-value	Yes	No	P-value
Q7	1 week	9 (5.6)	2 (4.8)	7 (5.9)	0.018	8 (6.7)	1 (2.4)	0.001
	1 month	70 (43.5)	28 (66.7)	42 (35.3)		60 (50.0)	10 (24.4)	
	2 months	29 (18.0)	6 (14.3)	23 (19.3)		24 (20.0)	5 (12.2)	
	3 months	43 (26.7)	5 (11.9)	38 (31.9)		23 (19.2)	20 (48.8)	
	4 months	1 (0.6)	0 (0.0)	1 (0.8)		1 (0.8)	0 (0.0)	
	6 months	9 (5.6)	1 (2.4)	8 (6.7)		4 (3.3)	5 (12.2)	
Q8	Below 3	28 (17.4)	5 (11.9)	23 (19.3)	0.128	18 (15.0)	10 (24.4)	0.234
	4 to 6	77 (47.8)	18 (42.9)	59 (49.6)		54 (45.0)	23 (56.1)	
	7 to 10	21 (13.0)	7 (16.7)	14 (11.8)		18 (15.0)	3 (7.3)	
	11 to 20	14 (8.7)	2 (4.8)	12 (10.1)		11 (9.2)	3 (7.3)	
	Above 20	3 (1.9)	2 (4.8)	1 (0.8)		3 (2.5)	0 (0.0)	
	Other	18 (11.2)	8 (19.0)	10 (8.4)		16 (13.3)	2 (4.9)	
Q9	<3 cm	23 (14.3)	4 (9.5)	19 (16.0)	0.394	15 (12.5)	8 (19.5)	0.474
	3–5 cm	49 (30.4)	15 (35.7)	34 (28.6)		34 (28.3)	15 (36.6)	
	5–7 cm	40 (24.8)	11 (26.2)	29 (24.4)		31 (25.8)	9 (22.0)	
	7–10 cm	12 (7.5)	3 (7.1)	9 (7.6)		10 (8.3)	2 (4.9)	
	>10 cm	9 (5.6)	0 (0.0)	9 (7.6)		6 (5.0)	3 (7.3)	
	Other	28 (17.4)	9 (21.4)	19 (16.0)		24 (20.0)	4 (9.8)	
Q10	1 time	3 (1.9)	0 (0.0)	3 (2.5)	0.697	2 (1.7)	1 (2.4)	0.618
	2 times	62 (38.5)	15 (35.7)	47 (39.5)		44 (36.7)	18 (43.9)	
	3 times	78 (48.4)	22 (52.4)	56 (47.1)		58 (48.3)	20 (48.8)	
	4 times	3 (1.9)	0 (0.0)	3 (2.5)		2 (1.7)	1 (2.4)	
	5 times	4 (2.5)	1 (2.4)	3 (2.5)		4 (3.3)	0 (0.0)	
	Other	11 (6.8)	4 (9.5)	7 (5.9)		10 (8.3)	1 (2.4)	

Values are presented as n (%) unless otherwise indicated. 'Q7' is 'how long do you think it would take to detect new lesions or recurrences after TACE in TACE refractoriness?'. 'Q8' is 'if new lesions appear after TACE, how many tumors do you think are maladaptive for repeated TACE?'. 'Q9' is 'if local recurrences occur after TACE, how large is the maximum size of tumor considered for TACE refractoriness?'. 'Q10' is 'how many times should there be insufficient necrosis or recurrences after repeated TACE to be considered TACE refractoriness?'. P-value was calculated using chi-square test and Fisher's exact test as appropriate.