

Supplementary Table S5. Comparison of Outcomes between Groups with and without Antibiotics, Including Patients Receiving Multiple Antibiotics Using Intravenous Aminoglycoside or Metronidazole in the Matched Cohort.

Outcome	Antibiotics Group ^a (N = 29,212)		Non-Antibiotics Group ^a (N = 29,212)		Relative Risk (95% CI)	Risk Reduction (95% CI)	NNT (95% CI)	p- Value ^b
Liver abscess ^c	25	(0.09)	65	(0.22)	0.38 (0.24–0.61)	0.0014 (0.0007–0.0020)	730 (491–1,350)	<0.001
In-hospital mortality (≤30 days)	109	(0.37)	111	(0.38)	0.98 (0.75–1.28)	0.0001 (-0.0009–0.0011)	-	0.893
Length of stay ^d (days)	10 [12.1]	(8–13)	9 [11.3]	(8-12)	–	–	–	<0.001

This analysis included the patients receiving multiple antibiotics using intravenous aminoglycoside or metronidazol (N = 336).

^a Data shown as n (%), unless otherwise specified.

^b Using the Pearson's chi-squared test for proportions and the Mann-Whitney U test for the length of stay.

^c Liver abscess requiring procedural intervention.

^d Data shown as median [mean] (interquartile range).

CI: confidence interval; NNT: number needed to treat

Supplementary Table S6. Comparison of Outcomes between Groups with and without Antibiotics Ordered Together with Transarterial Chemoembolization Procedure in the Matched Cohort.

Outcome	Antibiotics Group ^a (N = 14,042)		Non-Antibiotics Group ^a (N = 14,042)		Relative Risk (95% CI)	Risk Reduction (95% CI)	NNT (95% CI)	p- Value ^b
Liver abscess ^c	5	(0.04)	27	(0.19)	0.19 (0.07–0.48)	0.0016 (0.0008–0.0025)	638 (406– 1,251)	<0.001
In-hospital mortality (≤30 days)	46	(0.03)	52	(0.04)	0.88 (0.60–1.31)	0.0004 (-0.0010–0.0018)	–	0.544
Length of stay ^d (days)	10 [12.0]	(8–14)	9 [11.3]	(8–12)	–	–	–	<0.001

^aData shown as n (%), unless otherwise specified.

^bUsing the Pearson's chi-squared test for proportions and the Mann-Whitney U test for the length of stay.

^cLiver abscess requiring procedural intervention.

^dData shown as median [mean] (interquartile range).

CI: confidence interval; NNT: number needed to treat

Supplementary Table S7. Comparison of Outcomes between Groups with and without Antibiotics Including Patients Who Received Another Procedure for Liver Cancer after Transarterial Chemoembolization in the Matched Cohort^a.

Outcome	Antibiotics Group ^b		Non-Antibiotics Group ^b		Relative Risk (95% CI)	Risk Reduction (95% CI)	NNT (95% CI)	p-Value ^c
	(N = 31,239)		(N = 31,239)					
Liver abscess ^d	28	(0.09)	69	(0.22)	0.41 (0.26–0.63)	0.0013 (0.0007–0.0020)	762 (510–1,426)	<0.001
In-hospital mortality (≤30 days)	111	(0.36)	113	(0.36)	0.98 (0.76–1.28)	0.0001 (-0.0009–0.0010)	–	0.894
Length of stay (days) ^e	10 [12.8]	(8–14)	10 [11.8]	(8–13)	–	–	–	<0.001

^a In addition to all the patients in main analysis, this analysis included patients who received another procedure after transarterial chemoembolization (N = 17,509). After 1:1 propensity score matching, 31,239 pairs were selected.

^b Data shown as n (%), unless otherwise specified.

^c Using the Pearson's chi-squared test for proportions and the Mann-Whitney U test for the length of stay.

^d Liver abscess requiring procedural intervention.

^e Data shown as median [mean] (interquartile range).

CI: confidence interval; NNT: number needed to treat

Supplementary Table S8. Proportion of Liver Abscess Requiring Procedural Intervention According to Timing and Admission Status in the Matched Cohort.

Time After TACE	Type of Admission	Antibiotics Group		Non-Antibiotics Group		p-Value
		(N = 29,211)	(N = 29,211)	(N = 29,211)	(N = 29,211)	
		N	(%)	n	(%)	
≤15 days	Hospitalization for TACE	10	(0.03)	33	(0.11)	<0.001 ^a
	Readmission	3	(0.01)	12	(0.04)	0.021 ^b
	Total	13	(0.04)	45	(0.15)	<0.001 ^a
≤30 days	Hospitalization for TACE	11	(0.04)	40	(0.14)	<0.001 ^a
	Readmission	12	(0.09)	25	(0.04)	0.033 ^a
	Total	23	(0.08)	65	(0.22)	<0.001 ^a

^a Using Pearson's chi-squared test.

^b Using Fisher's exact test.

TACE: transarterial chemoembolization