

Table S1 Characteristics of patients with HPD

Patient	Age	Sex	HCC	ICI type	ECOG PS	BCLC	Child-Pugh	NLR	Tumor size (cm)	Tumor size increase (%)	Metastatic organs	PVTT	Combination of targeted agents	Previous hepatic resection
1	40–49	Male	HCC	Toripalimab	0	A	A	2.81	8.20	68.29	Lung, LN	Yes	Lenvatinib	No
2	40–49	Male	HCC	BGB-A317	1	C	A	1.4	9.70	21.65	LN	Yes	Sorafenib	No
3	30–39	Male	HCC	Sintilimab	1	C	A	3.49	15.90	40.25	Lung, LN	No	Non	No
4	40–49	Male	HCC	Sintilimab	1	C	A	3.13	15.50	24.52	Lung, Spleen, LN	No	Lenvatinib	Yes
5	30–39	Male	HCC	Sintilimab	1	C	A	7.63	8.30	54.22	Lung, LN	No	IBI305	No
6	40–49	Male	HCC	Sintilimab	1	B	A	3.17	5.60	33.93	Non	No	Non	No
7	40–49	Male	HCC	Sintilimab	0	C	A	7.65	11.40	21.93	LN	No	IBI305	No
8	60–69	Female	HCC	Camrelizumab	0	C	A	2.52	16.10	29.19	Lung, LN	No	apatinib	Yes
9	20–29	Male	HCC	Tislelizumab	0	C	A	1.26	7.80	39.74	Lung, brain, LN	No	Lenvatinib	Yes
10	30–39	Male	ICC	Toripalimab	0	C	A	6.01	9.60	51.04	LN	Yes	Lenvatinib	No
11	60–69	Male	HCC	Sintilimab	2	C	B	2.72	11.40	21.93	LN	No	Non	No
12	70–79	Male	HCC	Camrelizumab	1	C	A	2.1	7.30	21.92	LN	No	Lenvatinib	Yes
13	60–69	Male	HCC	Nivolumab	0	A	B	3.69	14.40	47.92	Non	No	Non	Yes

HPD, hyperprogressive disease; ICI, immune checkpoint inhibitor; ECOG PS, Eastern Cooperative Oncology Group performance status; NLR, neutrophil to lymphocyte ratio; BCLC, Barcelona clinic liver cancer; LN, lymph node; PVTT, portal vein tumor thrombus; HCC, hepatocellular carcinoma; ICC, intrahepatic cholangiocarcinoma; LN, lymph node. For privacy protection purposes, the patient's specific age is not shown in the table.