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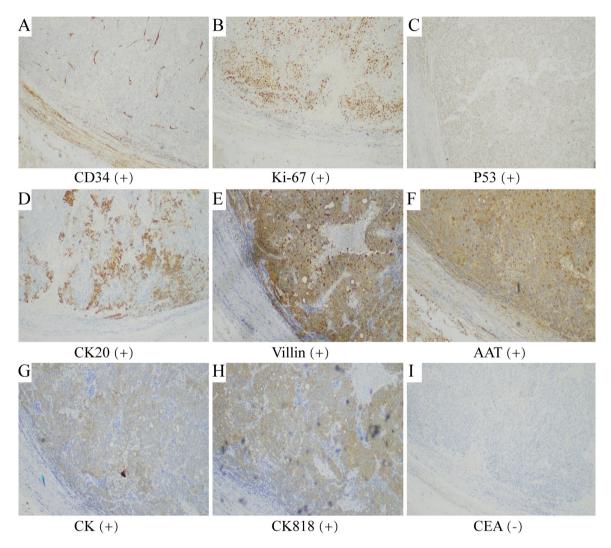


Figure S1 Immunohistochemical characteristics. (A-H) The immunohistochemical of patient tested positive for CD34, Ki-67, P53, CK20, Villin, AAT, CK, CK818. (I) The result of CEA is negative (×200). AAT, alpha 1-antitrypsin; CK, cytokeratin; CEA, carcinoembryonic antigen.

Table S1 Summary of clinical features of hepatoid carcinomas of the pancreas reported in the English language literature

Patient no.	Author/year	Age/sex	Tumor location	Tumor size (cm)	AFP value (ng/mL)	Other components	Treatment	Follow-up and outcome
1	Hamazoe et al./1987 (11)	34/M	Body	ND	84,000	ND	Chemotherapy	2 months,
2	Yano <i>et al.</i> /1999 (12)	57/M	Head	9×7×5	177.6	ND	Surgery	3 months,
3	Tanno <i>et al.</i> /1999 (13)	65/F	Body and tail	6 cm in diameter	16,170	ND	Conservative treatment	6 months, died
1	Paner <i>et al.</i> /2000 (14)	57/M	Body and tail	6×4×3.5	ND	Glucagonoma	Surgery, chemotherapy	102 months, died
5		28/M	ND	8×8×6	ND	Ductal adenocarcinoma	Chemotherapy	14 months, died
6	Lam et al./2001 (15)	64/F	Tail	4.8×2	2,119	Neuroendocrine tumor	Surgery, chemotherapy	22 months, died
7	Cuilliere et al./2002 (16)	70/M	Body and tail	2.5 cm in diameter	1.9	Serous microcystic adenoma	Surgery	12 months, alive
3	Hirai et al./2003 (17)	64/M	Head and body	6.5×3.5	441	ND	Surgery, radiation therapy	22 months, alive
9	Matsueda et al./2006 (18)	49/F	Diffuse	ND	623	ND	Surgery	12 months, alive
10	Lin et al./2007 (19)	47/M	Tail	2 cm in diameter	463.69	Acinar cell carcinoma	Surgery	36 months, alive
11	Kubota et al./2007 (20)	56/M	Tail	6.5 cm in diameter	ND	ND	Surgery	36 months, alive
12	Liu et al./2007 (21)	80/M	Head	4.6×4.4×5	ND	ND	Palliative surgery	8 months, alive
13	Hameed <i>et al.</i> /2007 (22)	41/F	Head	4.6×3.5	2,714	Nndocrine carcinoma	Surgery	26 months, died
14	Cardona <i>et al.</i> /2007 (23)	58/M	Tail	3.3×2.5×2.5	ND	ND	Surgery	15 months, alive
15	Jung et al./2010 (24)	46/M	Head	7.5 cm in diameter	262.49	Neuroendocrine tumor	Surgery	4 months, alive
16	Petrelli <i>et al.</i> /2012 (9)	37/M	Body	11 cm in diameter	11	ND	Sorafenib	15 months, died
17	Kai et al./2012 (25)	79/F	Tail	7×5	ND	ND	Surgery	1 months, died
18	Huang <i>et al.</i> /2012 (26)	52/M	Head	0.5 cm in diameter	ND	Neuroendocrine tumor	Surgery	11 months,
19	Hiraoka <i>et al.</i> /2012 (3)	25/F	Head	10 cm in diameter	1,222.40	Acinar cell carcinoma	Surgery	2 months, died
20	Kelly et al./2012 (27)	53/F	Body and tail	ND	148	ND	Surgery, chemotherapy	22 months,
21	Majumder et al./2013 (28)	60/M	Head	5.8×6	ND	ND	Chemotherapy	3 months,
22	Steen <i>et al.</i> /2013 (29)	61/F	Tail	5 cm in diameter	4.9	ND	Surgery	60 months, alive
23	Xin et al./2014 (6)	33/F	Head	2×1.4×1.8	407.5	ND	Surgery, chemotherapy, radiotherapy	46 months, alive
24	Antonini <i>et al.</i> /2015 (30)	59/M	Body	6×5	ND	ND	Sorafenib	4 months, died
25	Williams <i>et al.</i> /2015 (7)	71/M	Head	4.5 cm in diameter	0.6	ND	Surgery	ND
26	Veerankutty et al./2015 (31)	47/M	Tail	2.3×2	1.75	Serous cystadenoma	Surgery	8 months, alive
27	Vanoli <i>et al.</i> /2015 (32)	57/M	Head	2.5 cm in diameter	147.8	Lymphoid stroma	Surgery, chemotherapy	18 months, alive
28	Kuo et al./2015 (33)	67/M	Tail	2×2	ND	ND	Surgery	6 months, alive
29	Zhu et al./2015 (34)	56/M	Body and tail	5.2×4.8×4.1	321.4	Neuroendocrine tumor	Surgery, chemotherapy	21 months, died
30	Stamatova et al./2016 (35)	78/M	Head	8 cm in diameter	ND	ND	Surgery	2 months, died
31	Chang et al./2016 (36)	61/M	Tail	8×5	ND	ND	Surgery	6 months,
32	Pellini <i>et al.</i> /2017 (37)	43/M	Tail	9 cm in diameter	2.9	Glucagonoma	Chemotherapy	16 months,
33	Dogeas <i>et al.</i> /2017 (38)	65/M	Head	10 cm in diameter	ND	ND	Chemotherapy, surgery	ND
34	Ma et al./2017 (5)	75/M	Tail	7.8 cm in diameter	1,897.70	ND	Chemotherapy, surgery	13 months,
35	Fukushima et al./2018 (39)	44/M	Head	1.9×1.8	ND	ND	Surgery	ND
36	Yang et al./2019 (40)	83/M	Body	2.7×2.5×1.5	ND	ND	Surgery	107 months
37		72/M	Tail	12×10.5×4.5	ND	ND	Surgery	1 months,
38		54/M	Body and	10×9×9	8,338	ND	Surgery	29 months,
39	Wang et al./2020 (2)	28/M	Head	4.2 cm in diameter	6,740.70	Neuroendocrine tumor	Chemotherapy, surgery	3 months,
40	Trinh et al./2021 (41)	49/M	Head	2.6×2.8	2.42	Neuroendocrine tumor	Chemotherapy, surgery	8 months, alive
41	Present case	48/M	Head	7.5×7×3.7	61,887.16	ND	Surgery	27 months,

In the table above: 21 patients only underwent surgery without any other treatment, follow-up data of 19 cases were complete, median follow-up was 11 months and the mortality rate was 36.84%. Twelve patients underwent surgery combined with other adjuvant treatments (such as chemotherapy, radiotherapy or sorafenib), follow-up data of 11 cases were complete, median follow-up was 27 months and the mortality rate was 27.27%. Eight patients received other treatments (such as only chemotherapy, only sorafenib, palliative surgery or conservative treatment), median follow-up was 7 months and the mortality rate was 75.00%. AFP, alpha fetoprotein; M, male; ND, not described; F, female.

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Table S2 Clinical and biochemical characteristics of the HCP patients

Characteristics	Number of cases (%)		
Year of publication of literature			
≥2010	27 (65.9)		
<2010	14 (34.1)		
Age (years)			
≥60	16 (39.0)		
<60	25 (61.0)		
Sex			
Male	31 (75.6)		
Female	10 (24.4)		
Tumor location			
Head	16 (39.0)		
Body	4 (9.8)		
Tail	12 (29.3)		
Others	9 (22.0)		
AFP value (ng/mL)			
≥400	13 (31.7)		
<400	12 (29.3)		
ND	16 (39.0)		
Other components			
Yes	15 (36.6)		
No	26 (63.4)		
Treatment			
Only surgery	21 (51.2)		
Surgery combined with other adjuvant treatments	12 (29.3)		
Others	8 (19.5)		

HCP, hepatoid carcinoma of the pancreas; AFP, alpha fetoprotein; ND, not described.