

Table 1. Patient characteristics

	No of cases
Sex	
Male	76
Female	25
Age yrs (range)	64 (38–87)
Primary tumors	
Hepatocellular carcinoma (HCC)	83
HCC with chronic hepatitis	44
HCC with liver cirrhosis	39
Cholangiocellular carcinoma	3
Cystadenoma	1
Metastatic disease	
Gall bladder carcinoma	3
Colorectal carcinoma	11
Operative procedures	
Major hepatectomies	71
right or extended right hepatectomy	57
left or extended left hepatectomy	14
Minor hepatectomies	30
HBV positive	19
HCV positive	67
HBsAg (-) and HCV(-)	13
HBsAg (+) and HCV(+)	2
Liver failure after hepatic resection	17

Patient characteristics.
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Table 2.

liver function factor	A	B	Statistical significance between A and B	C	D	Statistical significance between C and D
	liver dysfunction after surgery 17 patients	No-dysfunction after surgery 84 patients		HCC with CH 44 patients	HCC with LC 39 patients	
	mean± SD	mean± SD	p-value	mean± SD	mean± SD	p-value
KICG	0.108±0.041	0.141±0.041	<0.05	0.144± 0.0125	0.0937±0.007	<0.01
WR (g)	913.2± 453.8	647± 511.9	<0.05	827±611.2	572.9±468.9	<0.05
TV (ml)	430.4±338.7	319.7±453	NS	407±537.8	2702±309.8	NS
TLV (ml)	1684.3±494.5	1429.7±464.9	NS	1581.2±524.5	1448.2±469.4	NS
Vrem (ml)	741.7±296.3	854.0±336.0	NS	830.7±289.8	882.04±333.6	NS
[R]0 (nMol/L)	412±103	551±118	<0.01	570±80.7	393±28.7	<0.01
R0rem (nM/liver)	62.05±11.10	122.2±46.33	<0.01	124.4±42.6	83.8±18.95	<0.01
R0 (nM/liver)	149.8± 35.12	211.21± 92.65	<0.01	201.5±51.2	118.62±18.31	<0.01
RPF (%)	36.9±17.23	31.65±19.04	<0.05	36.4±17.8	26.9±19.59	0.05
LHL15	0.791±0.09	0.87±0.07	0.035	0.90±0.037	0.80±0.068	0.047

Abbreviations: WR, resected liver weight; TV, tumor volume; TLV, total liver volume including tumor volume; Vrem, remnant liver volume; [R]0, asialoglycoprotein receptor concentration; R0rem, amount of asialoglycoprotein receptor in the future remnant liver which would be resected; RPF, resected parenchymal fraction; LHL15¹⁷, The hepatic uptake of ^{99m}Tc GSA receptor was calculated after the injection of ^{99m}Tc GSA by dividing liver activity at 15 min by heart plus liver activities at 15 min; CH, chronic hepatitis, LC: liver cirrhosis. Volumetric data of TLV, TV, Vrem and RPF were measured by means of CT, and R0rem, and [R]0 were measured by means of SPECT using ^{99m}Tc-GSA and CT scans.

Comparison of preoperative various liver functions using ^{99m}Tc-GSA SPECT between patients with liver dysfunction and no liver dysfunction after hepatic resection.
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Table 3.
Comparison of regeneration rate between volume and remnant receptor after PTPE or hepatectomy

	Post PTPE	Tumor bearing tissue	
		cirrhotic (n=5)	noncirrhotic (n=12)
Volume regeneration rate of hepatic parenchymal volume after PTPE (%)	2 weeks	104.9±16.4	124.6±17.7
Receptor regeneration rate of hepatic R0rem after PTPE (%)	2 weeks	109.2±5.5	130.17±23.1
Volume regeneration rate of hepatic parenchymal volume after PTPE (%)	4 weeks	105.3±4.6	132.8±9.5
Receptor regeneration rate of hepatic R0rem after PTPE (%)	4 weeks	137.2±5.4	166.2±8.9
	Post-hepatectomy	Tumor bearing tissue	
		cirrhotic (n=5)	noncirrhotic (n=12)
Volume regeneration rate of remnant hepatic parenchymal volume after hepatectomy (%)	3 weeks	95.4±7.5	121.1±10.5
Receptor regeneration rate of R0rem after hepatectomy (%)	3 weeks	81.9±5.4	120.6±5.9
Volume regeneration rate of remnant hepatic parenchymal volume after hepatectomy (%)	3 months	118.5±3.3	166.2±18.9
Receptor regeneration rate of R0rem after hepatectomy (%)	3 months	107.6±3.4	160.3±12.5

Comparison between regeneration rate of remnant hepatic volume and receptor amounts of the remnant liver estimated before and after PTPE as well as before and after hepatectomy.
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