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How I manage my patients with hepatocellular carcinoma

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Patients With a HCC Attending the Liver Center Policlinic Hospital Milan During 2010

<u>Overall HCC patients, n.</u>	262
Males	217 (83%)
Age, yr	68 (36-87)

<u>Etiology, n.</u>	HCV	142 (54%)
	HBV	30 (11%)
	Etoh	31 (12%)
	Mixed	56 (21%)

<u>Early diagnosed, n.</u>	69 (26%)
Surveillance	39 (56%)
Referred	30 (44%)
<u>BCLC B-D, n.</u>	193 (74%)

<u>Early diagnosed (BCLC), n.</u>			
A	64 (93%)	C	3 (4%)
B	2 (3%)	D	0 (0%)

Evolving Guidelines for Clinical Management of Hepatocellular Carcinoma

Journal of Hepatology 35 (2001) 421–430

Clinical Management of Hepatocellular Carcinoma. Conclusions of the Barcelona-2000 EASL Conference

AASLD PRACTICE GUIDELINE

HEPATOLOGY, Vol. 42, No. 5, 2005

Management of Hepatocellular Carcinoma

Jordi Bruix¹ and Morris Sherman²

AASLD PRACTICE GUIDELINE

www.aasld.org

Management of Hepatocellular Carcinoma: An Update

Jordi Bruix¹ and Morris Sherman²

Radiological Diagnosis of Hepatocellular Carcinoma in Patients With Cirrhosis: EASL/AASLD Guidelines

Imaging techniques

contrast-enhanced US, contrast-enhanced spiral CT and gadolinium-enhanced MRI

Pathognomonic features

wash-in followed by wash-out

< 2 cm node

two concordant contrast imaging techniques

> 2 cm node

one contrast imaging technique only

Prospective validation*

89 patients with a 7-20 mm nodule

CE-US+MRI	Sensitivity	33.3%
	Specificity	100%

Radiological Diagnosis of 1-2 cm HCC Nodules in Cirrhosis A Prospective Study in Milan

Imaging	HCC Patients	Sensitivity	Specificity
CE-US	34	26%	100%
CT	34	44%	100%
MRI	32	44%	100%
<u>Sequential study with one imaging</u>		65%	100%
Two coincidental imagings (AASLD)		35%	100%

Cost Analysis of Sequential vs Two Concordant Imaging Techniques for HCC

HCC diagnosis by at least 1 imaging

1st step 2nd step 3rd step

CE-US	CT	MRI
	MRI	CT
CT	CE-US	MRI
	RM	CE-US
MRI	CT	CE-US
	CE-US	CT

No. FNB

Aggreg. Cost (€)

33	28,667
33	30,215
33	28,909
33	29,346
33	30,970
33	30,607

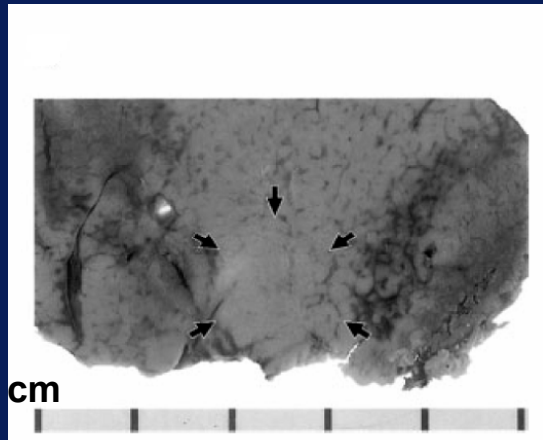
AASLD criteria 2 concordant imaging

CE-US and CT	MRI
CE-US and MRI	CT
CT and MRI	CE-US

43	26,440
43	30,922
43	33,898

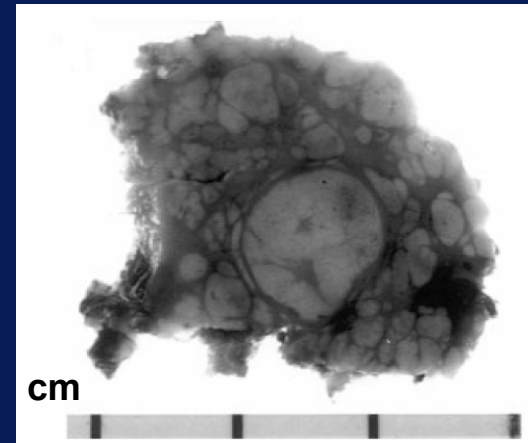
Very Early HCC Escapes Detection with Contrast Imaging and Has a Better Prognosis Than Early HCC

Very early



Vaguely nodular
Hypovascular on contrast imaging

Early



Distinctly nodular
Hypervascular on contrast imaging

Very early vs early : 5-yr survival after resection of 93% vs 54% (Takayama et al 1998)

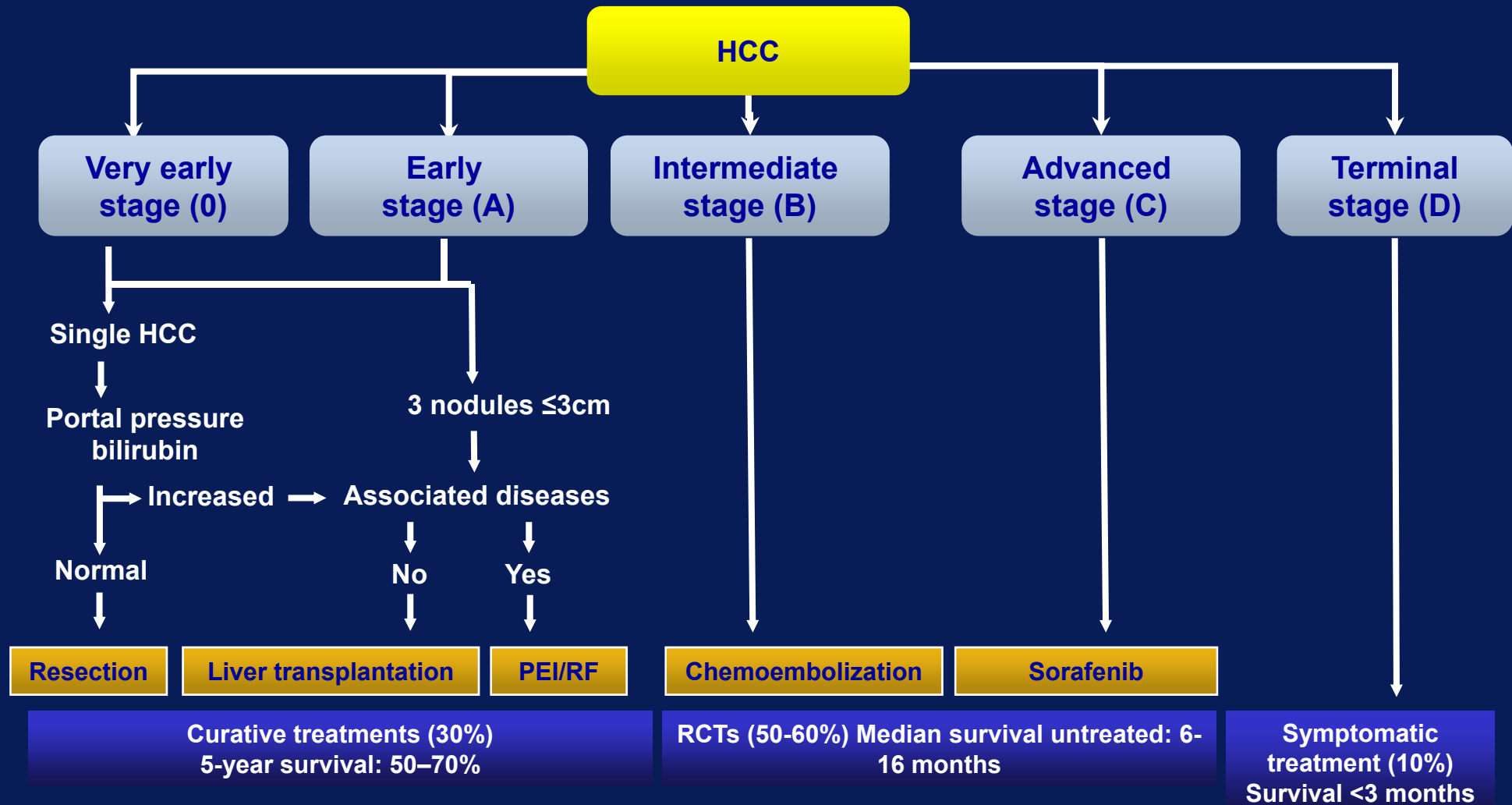
Modern Staging Systems in Hepatocellular Carcinoma

Staging system	External validation	Variables	Treatment guidance	Endorsement
BCLC (Sem Liver Dis 1999)	Yes	Tumor status Liver function Health status	Yes	AASLD EASL AASLD JNCI
CLIP (Hepatology 1999)	Yes	Tumor status Liver function	No	AHPBA
TNM-AJCC (JCO 2002)	Yes	Tumor status	No	AJCC
JIS (J Gastro 2003)	Yes	Tumor status Liver function	No	-

The Barcelona Clinic Liver Cancer (BCLC) Staging Classification for Hepatocellular Carcinoma Is Endorsed by EASL/AASLD

BCLC stage	Performance status	Tumor volume, number and invasiveness	Child-Pugh	Expected survival
A Very Early/Early	0	Single < 5 cm or 3 nodes < 3 cm each	A & B	50-75% at 5 yr
B Intermediate	0	Large/multinodular	A & B	16 months
C Advanced	1-2	Vascular invasion and/or extrahepatic spread	A & B	6 months
D End-stage	3-4	Any of the above	C	< 3 months

Tailoring Treatment According to the Clinical Stage of HCC



Adapted from Bruix J and Llovet JM, *Lancet* 2009;373:614–616

Surveillance of 447 Patients with Compensated Cirrhosis of Mixed Etiology in Milan

Outcomes	1987-91	1992-96	1997-2001	p
HCC, No.	52	37	23	
HCC size, cm	3.7 (1.5-8)	3.0 (1.5-6.0)	2.2 (1.4-3.1)	= 0.02
Radical treatments	28%	38%	43%	= 0.02
Mortality in treated	34%	28%	5%	= 0.024
Mortality in untreated	69%	100%	92%	n.s.
Overall mortality	45%	37%	10%	= 0.0009