

HEPATOCELLULAR CARCINOMA: CORRELATION BETWEEN THE RADIOLOGICAL FINDINGS AND POST-TRANSPLANT PATHOLOGY OF EXPLANT

Marcelo B. Rezende, Rogerio C. Afonso, Sergio P. Meira-Filho, Andre I. David, Renato Hidalgo, Maria Paula V. Coelho, Renee Z. Fillipi, Filadelfo E. Venco, Ben-Hur Ferraz-Neto

Sao Paulo - Brazil

Introduction

Liver transplantation is the treatment of choice for cirrhotic patients with unresectable hepatocellular carcinoma (HCC) or moderate to severe liver dysfunction. After the MELD (model for end-stage liver disease) score criteria for liver graft allocation, patients with HCC were awarded extra points for the risk of progressive disease. These transplant candidates get extra points in three and six months (MELD score 24 and 29, respectively) and radiology plays a fundamental role in the diagnosis and monitoring of liver tumors.

Purpose

Analyze and compare the results of radiological examinations in the pre-transplant phase, "special situation" of HCC, with the anatomopathological examination of the explanted cirrhotic and tumoral liver.

Patients and Methods

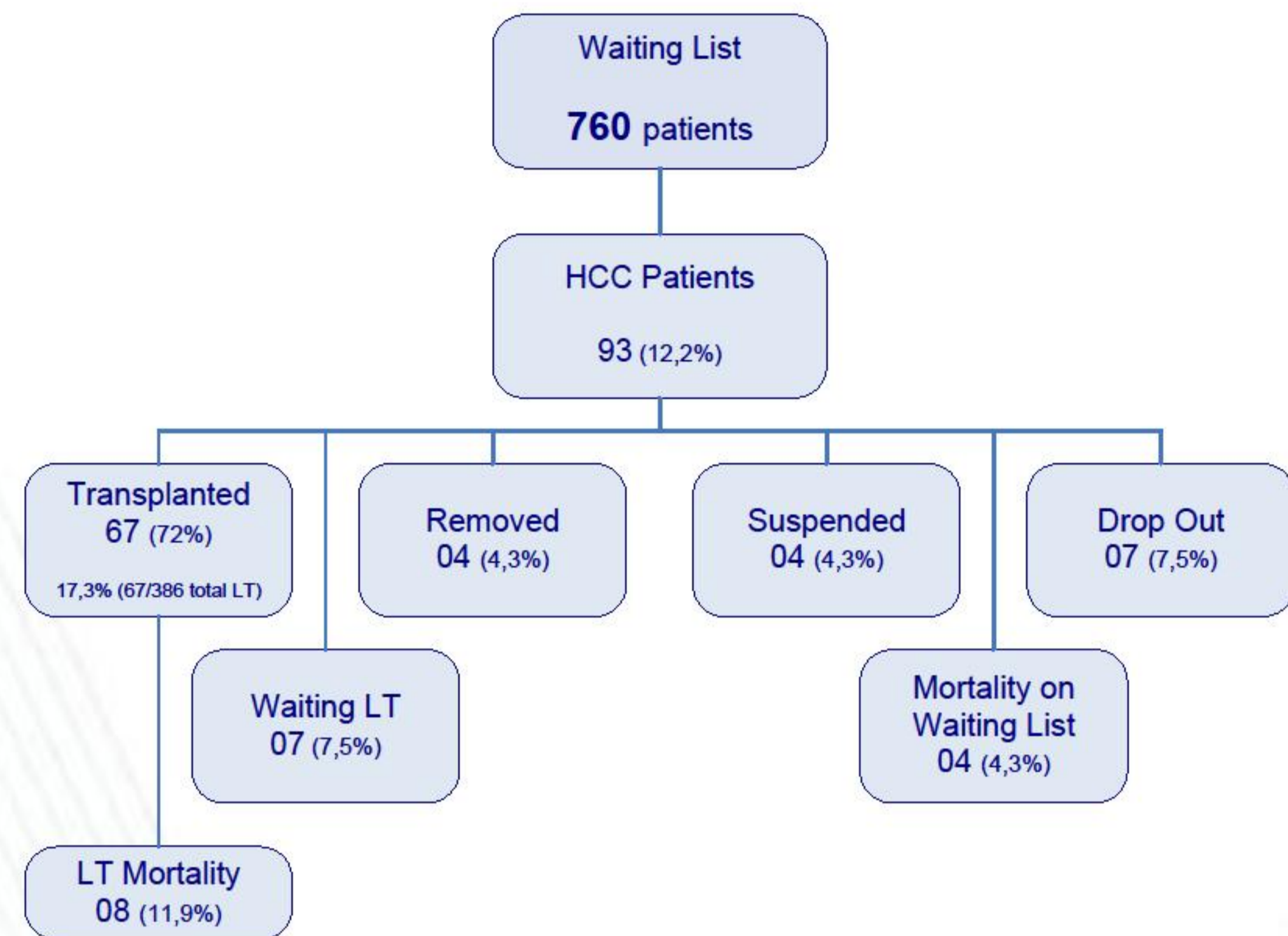
Retrospective study with cirrhotic patients with HCC listed for liver transplant according with Milan criteria, from May 2005 to March 2010. Were analyzed demographic characteristics, indications, waiting list period, neo-adjuvant treatments, radiological findings and survival. The anatomopathological examination of the explanted liver was compared with the previous radiologic findings.

Results

During the study period, 760 patients were listed for liver transplant according figure 1.

The assessment of pathologic features of these 67 explants confirmed the presence of tumor in 62 cases (92,5%).

After comparing the X-rays and a pathologic these 61 cases, we find confirmation of the number and size of nodules in 40 (65,6%), 16(26,2%) there was confirmation of the number or size the lesion and in 5 (8,3%) did not confirm the number or size of nodules. Of the 67 explants analyzed five patients were over-staged since the examination of the explant did not confirm the nodules diagnosed preoperatively by imaging studies and of the 61 explant with HCC confirmed by pathology the Milan criteria was exceeded in 10 cases (16,4%).

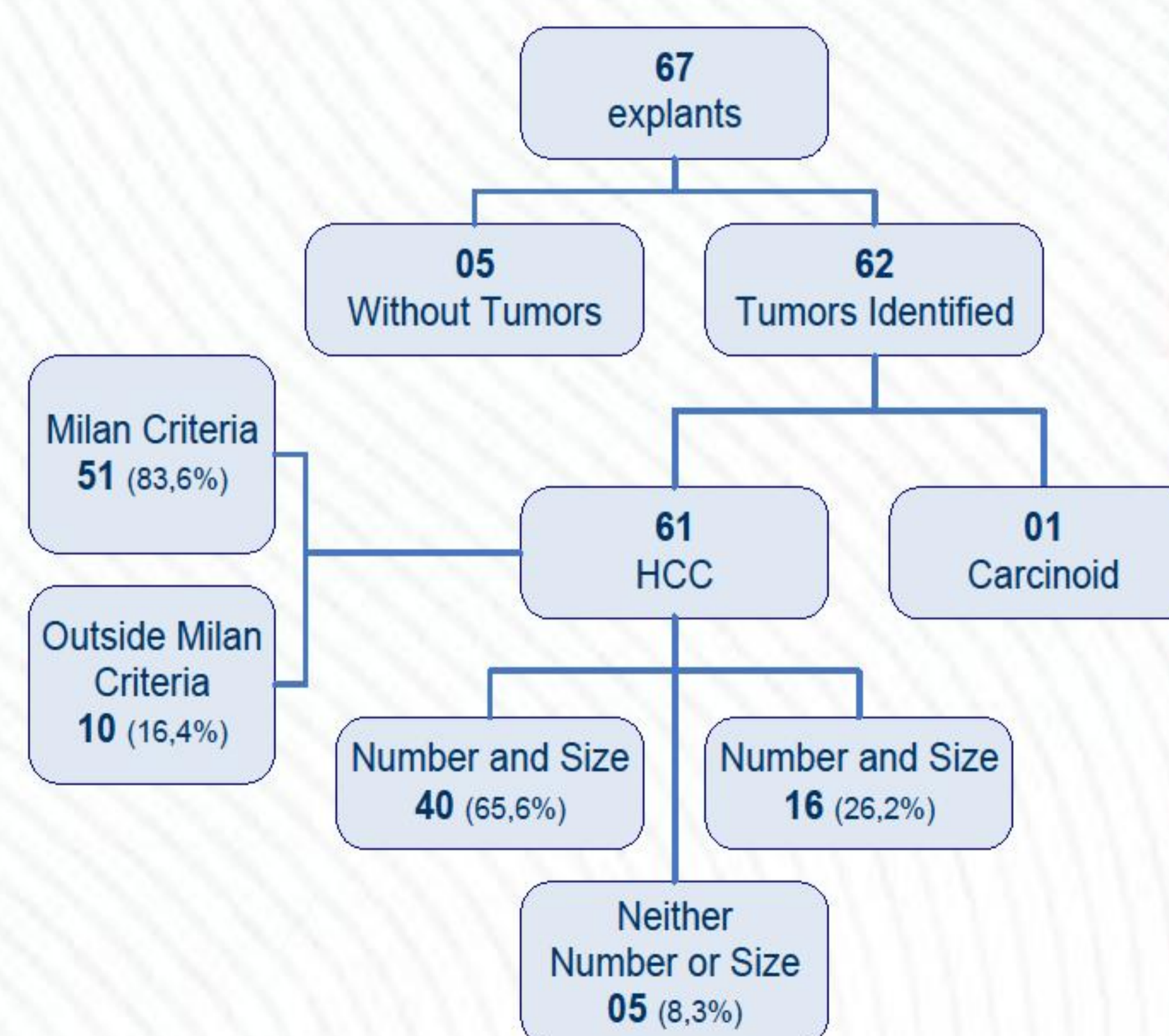


Demographics of transplants patients (n=67)

median age	53 (38-71 years)
Gender (M/F)	59 / 08
Etiology	
HCV	58 (86,5%)
Criptogenic	05 (7,5%)
ALD	04 (6%)
Median MELD	19 (6-28)
Child Pugh	
A / B / C	34 / 25 / 08
Median Waiting Period for LT	322,3 (15-1265 days)
Pre Transplant Treatment	
QEIA	54 (1-18 / 2-28 / 3-8)
Ablation	02
Resection	0
None	11
AFP level (ng/dL)	
0-100	51 (76%)
101-400	12 (18%)
>400	04 (6%)
Radiologic Diagnosis	
MRI - TC	36 (53,7%)
MRI - US	18 (26,9%)
TC - US	13 (19,4%)

Pathological features of patients that histopathologic exams confirmed CHC (N: 61)

	n	%		n	%
Pre Transplant Treatment	56	91,8%	Microvascular Invasion	19	31,1%
QEIA	54	96,4%			
QEIA + Ablation	1	1,8%			
Ablation	1	1,8%			
Viable Tumor	n	%	Histology	n	%
0 - 25 %	29	47,5%	Well Differentiated	17	27,9%
25 - 50 %	27	44,3%	Moderated Differentiated	38	62,3%
> 50 %	5	8,2%	Poor Differentiated	06	9,8%



Conclusion

Most cases are within the proposed criteria, but still had a significant number of patients (22,3%) under-or over-staged.