

SELECTION OF LIVER TRANSPLANT RECIPIENTS FOR THE TREATMENT OF HCC BASED ON ADJUSTABLE PREOPERATIVE CRITERIA WITH A PRE-DETERMINED, CENTER SPECIFIC, FIVE-YEAR PATIENT SURVIVAL TARGET

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Introduction: Patient with HCC selection criteria for liver transplantation (Milan, UCSF) are under constant re-validation.

Purpose: To identify preoperative parameters that would construct a prediction nomogram with adjustable 5-year patient survival target for the selection of liver transplant recipients with HCC.

Methods: 110 primary adult liver transplants were performed between 1990 and 2006 for HCC. Multi-organ recipients (n=1) and patients that died during the first three postoperative months (n=12) were excluded from the study population. A total of 97 patients were analyzed. Patients outside Milan classification as calculated by pre-transplant imaging (n=24) received downstaging chemoembolization.

Results: Actuarial 10-year patient survival was 44%. Mean preoperative AFP level, diameter of the biggest tumor and cumulative size of all identified tumors were identified to be significant predictors of patient survival by univariate analysis. The same parameters were significant predictors of patient survival in a multivariate model ($p = .020$, coefficients: .172 for mean AFP, .576 for diameter of the biggest, .355 for cumulative size).

Univariate Analysis		
Parameter	Mean	Significance
Preoperative AFP	201	0.020
AFP trend	Binary	0.078
Number of tumors	1.84	0.424
Diameter of the biggest tumor	4.59	0.007
Cumulative tumor size	6.35	0.001

Conclusions: 5-year patient survival nomograms could be constructed based on the mean preoperative AFP, on the diameter of the biggest tumor and the cumulative tumor size, as determined by imaging.