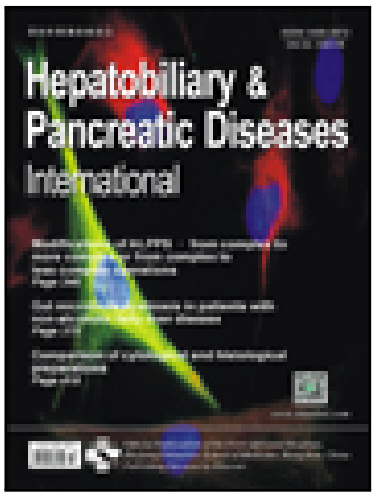

Granular data for a better allocation process of HCC LT Survivals after liver transplantation for hepatocellular carcinoma: granular data for a better allocation process?

Quirino Lai , Massimo Rossi

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Letters to the Editor

Running title: Granular data for a better allocation process of HCC LT

Survivals after liver transplantation for hepatocellular carcinoma: granular data for a better allocation process?

To the Editor:

A large international study has been recently published focusing on the combination of morphological aspects and alpha-fetoprotein (AFP) as predictors of survival in patients with hepatocellular cancer (HCC) treated with liver transplantation (LT) [1]. As a matter of fact, morphology and biology represent the two sides of the same coin, namely tumor aggressiveness. Several studies already investigated the combinatory role of morphology and biology [2-4]. The great merit of this study is that a "user-friendly" calculator has been developed starting from the results of the analysis: such a calculator is available at the webpage http://www.hcc-olt-metroticket.org/.

Using this calculator, it is possible to graphically represent the continuous interaction between morphological aspects and AFP values in a plot (Fig.). Furthermore, in light of the results observed in the plot, it is possible to do some considerations.

Firstly, if we accept the definition of transplant futility as a 5-year patient survival of less than 50% [5], we can observe that this threshold survival is achieved in patients with AFP of 1000 ng/mL only if the Milan Criteria are met. On the opposite, even patients meeting the Shanghai Criteria (single lesion of 9 cm of diameter) [6] can achieve 50% of survival if AFP values do not overpass 100 ng/mL. Interestingly enough, these two AFP cut-off values exactly represent the thresholds identified by Duvoux et al. for patients exceeding or meeting the Milan Criteria [7]. When an intermediate AFP value of 400-500 ng/mL is achieved, futile transplant is experienced when the University of California San Francisco Criteria (UCSFC) are exceeded [8]. Secondly, as for the possibility to expand the transplant criteria for HCC without