DIAGNOSIS OF HEPATIC NODULES < 20MM IN CHRONIC LIVER DISEASE. HISTOLOGIC VALIDATION OF CT AND MRI CRITERIA. T. Serste (1), V. Barrau (2), V. Ozenne (2), M.P. Vuilerme (2), O. Farges (2), D.C. Valla (2), V. Paradis (2), V. Vilgrain (2), F. Degos (2). (1) ULB Saint-Pierre, Brussels, Belgium ; (2) Hôpital Beaujon, Clichy, France.

Introduction : The diagnosis of nodules of 20 mm or smaller detected during US surveillance in patients with chronic liver disease remains difficult and histology is still recommended. However, this procedure may be risky or inconclusive. The accuracy of non invasive radiological examinations therefore needs updated evaluation.

Methods : 50 consecutive patients in whom US detected a small nodule (mean diameter 17 ± 3 mm) with advanced liver disease (Metavir F3 or F4), without prior Hepatocellular Carcinoma (HCC) underwent 3D-CT, MRI and liver biopsy of the nodule, all performed within 1 month.

Results : **Results** : sex ratio : M/F 82/18%, mean age 63.5 ± 11.6 years, HBV 37%, HCV 39%, alcohol 16%, Mean alpha foetoprotein : 34.3 ± 80.4 ng/ml. HCC was demonstrated on biopsy in 34 patients (fine needle aspiration in 2 patients). The biopsy demonstrated a regenerative macronodules in 7 cases, dysplasia in 4 cases and a cholangiocarcinoma in 1 case. In 4 patients, biopsy of the nodule found cirrhosis. The 4 patients with dysplasia at initial biopsy were carefully followed up (2-8 months) : a second biopsy showed HCC in 3 patients, and one patient was transplanted while HCC was demonstrated on the explant. On CT, the nodules were hypervascular in 33 cases (= suspicious diagnosis) ; among them 28 showed wash-out during portal or late phase (= conclusive diagnosis). On MRI, the nodules were hypervascular in 38 cases (suspicious) ; among them 32 showed wash-out during portal or late phase (conclusive). Thirty-six patients had a wash-out at CT and/or at MRI (= at least one Typical vascular pattern). Twenty-three patients had coincidental typical vascular pattern on both CT and MRI (= AASLD 2005 Crieria). In 20/34 patients (59%) a wash-out was detected on coincidental CT and MRI while in 14/34, it was detected in only one procedure. The presence of a wash-out on at least one of the two imaging techniques had a 92% positive predictive value for HCC diagnosis and reached a sensibility of 100% and a specificity of 87%.

Conclusion : In patients with chronic liver disease, the diagnostic performance of dynamic radiological procedures in small nodules US detected, is excellent. The presence of a wash out on at least one imaging techniques is highly evocative of HCC.

OUTCOME OF PATIENTS WITH HEPATOCELLULAR CARCINOMA LISTED FOR LIVER TRANSPLANTATION BEFORE AND AFTER THE MELD-BASED ALLOCATION SYSTEM WITHIN EUROTRANSPLANT. A BELGIAN MULTICENTRE RETROSPECTIVE STUDY. B. Vos (1), S. Rogge (2), F. Nevens (3), J. Pirenne (3), J. Lerut (4), O. Ciccarelli (4), H. Van Vlierberghe (2), R. Troisi (2), C. Moreno (1), V. Lucidi (1), V. Donckier (1), J. Delwaide (5), O. Detry (5), P. Michielsen (6), T. Chapelle (6), M. Adler (1). (1) ULB Erasme, Brussels, Belgium ; (2) Ghent University, Ghent, Belgium ; (3) University of Leuven, Leuven, Belgium ; (4) Université Catholique de Louvain, Brussels, Belgium ; (5) CHU Liège, Liège, Belgium ; (6) UZ, Antwerpen, Belgium.

Introduction : Since 16th December 2006, Eurotransplant (ET) implemented the MELD system for allocation of liver grafts, hepatocellular carcinoma (HCC) within the Milan criteria (MC) receiving 22 MELD points. This has modified the priorities for liver allocation in Belgium.

Aim : The aim of our study was to analyse the effects of this new rule on the outcome of patients listed for liver transplantation (LT) for HCC in Belgium.

Methods : We compared, on an intention-to-treat (ITT) basis, 226 patients listed for HCC as first diagnosis in the pre-MELD era (October 1999 to October 2004) with 191 patients with the same indications in the post-MELD era (16th December 2006 to June 2009).

Results : The 2 groups were identical for age, gender, median MELD score (9 vs. 10) and median alpha-foetoprotein level at listing but in the post-MELD era, median Child-Pugh score was significantly lower : 7 vs. 6, $p = 0.001$, as well as median tumor nodal number : 2 vs. 1, $p = 0.003$. Treatment before listing was similar between both groups : 54% vs. 61%, $p = 0.16$. Delisting rates were similar for the two eras (12%) whereas death while waiting decreased : 10% vs. 3%, $p < 0.001$ and transplantation rate increased : 140 (62%) vs. 163 (85%), $p < 0.001$.Median waiting time until LT was shorter in post-MELD era : 4 vs. 3 months, $p = 0.001$. At transplantation, patients within MC were more numerous in post-MELD era on the explant : 66 (47%) vs. 134 (82%), $p < 0.001$. After transplantation, HCC recurrence at 2 years was similar in both groups : 17 (12%) vs. 21 (13%), $p = 0.236$ and, the one year ITT mortality, was significantly lower in post-MELD era : 114/226 (50%) vs. 56/191 (29%), $p < 0.001$. Multivariate analysis post-LT on the 417 patients disclosed that a tumor above MC on the explant was the best predictor factor of post-LT mortality (RR 1.9, CI : 1.1-3.6, $p = 0.035$) whereas the best predictor factor of post LT HCC recurrence was vascular involvement on the explant (RR 3.2, CI : 1.7-7.6, $p = 0.04$).

Conclusion : The implementation of MELD for liver allocation by ET has decreased the delay for LT as well as the one-year ITT mortality and increased the LT rate for patients listed for HCC in Belgium.