

THE FIBRO7-SCORE : A NOVEL SERUM PROTEOME- AND CLINICAL BIOCHEMISTRY-BASED PREDICTIVE MODEL FOR CHRONIC HEPATITIS C LIVER FIBROSIS. K.J. Cheung (1), K. Tilleman (2), D. Deforce (2), I. Colle (1), H. Van Vlierbergh (1). (1) UZ, Gent, Belgium, (2) Ghent University, Ghent, Belgium.

**Introduction** : Liver biopsy is still the standard in the assessment of liver fibrosis in hepatitis C patients, despite invasiveness and potential sampling error.

**Aim** : Aim of this study was to construct and evaluate an alternative serum-test based on proteome-derived and routine biochemical indicators.

**Methods** : Patients characteristics (age, BMI, gender, genotype and inflammatory activity), clinical biochemistry (11) and proteome-derived markers(4) of an untreated hepatitis C patient cohort (n = 76) were studied in accordance with liver fibrosis. Based on 62 patients, an appropriate model was built for the prediction of minor (F0 - F1), moderate fibrosis (F2- F3) and cirrhosis (F4). Performance of the novel model was compared to aspartate aminotransferase to platelet ratio index (APRI) and Hepascore. Statistical analysis was by univariate analysis, linear discriminant analysis (LDA) and receiver operator characteristic (ROC) curve. P-value < 0.05 was considered statistically significant.

**Results** : Liver fibrosis was associated with patient's age, inflammatory activity, 8 biochemical indicators and all four protein markers. A 7-marker panel (Fibro7-score) based on  $\alpha$ -2-macroglobulin, haptoglobin, hemopexin, galectin-3-binding protein, albumin, -glutamyltransferase and white blood cell counts, had the lowest error-rate of 25.8% for fibrosis-classification. The Fibro7-score had areas under the curve of 0.89 and 0.99 for the detection of significant fibrosis ( $\geq$  F2) and cirrhosis (F4), respectively. Diagnostic performance was comparable or even better than the APRI and Hepascore.

**Conclusion** : We successfully implemented proteome-derived markers in combination with routine biochemistry in the construction of a novel predictive model for hepatitis C-related liver fibrosis (Fibro7-score). This novel model can reduce liver biopsies and assist treatment management.

DONATION AFTER CARDIAC DEATH LIVER TRANSPLANTATION : IS DONOR AGE AN ISSUE ? O. Detry, A. Deroover, J.P. Squifflet, M.F. Hans, B. Lambermont, S. Lauwick, M. Meurisse, J. Delwaide, P. Honoré. Ulg Sart Tilman, Liège, Belgium.

**Introduction** : Donation after cardiac death (DCD) liver transplantation has been proposed to increase the number of transplantable liver grafts. As older liver grafts may be more sensitive to ischemia, DCD donors older than 55 years are usually not considered suitable for DCD liver donation. Our local policy is to not refuse DCD liver grafts based on age.

**Aim** : The aim of this study is to determine the results of our DCD liver transplantation programme, and to compare the outcome of patients receiving older DCD livers to the younger ones.

**Methods** : We compared the results of DCD liver transplantations in a retrospective manner in our centre from 2003 to 2009. DCDs were divided into two groups according to age : younger donors (Y-DCD) < 55 years, and older donors (O-DCD) > 55 years. We compared donor and recipient demographics, peak laboratory values during the first postoperative week and results at one year. Results are expressed as mean  $\pm$  SEM. P < 0.05 was considered as significant.

**Results** : 33 DCD liver transplantations (Y-DCD n = 15, mean age : 44  $\pm$  2.2 years, extremes 25-53 ; O-DCD n = 18, mean age : 66  $\pm$  1.5 years, extremes : 56-79) were performed in the study period. No difference other than age in donor characteristics was noted between both groups. Mean age of the recipients was not different. Mean cold ischemia was 305  $\pm$  28 min in the O-DCD group and 257  $\pm$  18 min in the Y-DCD group (NS). Peak AST (UI/mL) and peak bilirubin (mg/dL) were 2,944  $\pm$  1432 and 46.8  $\pm$  9.5 in the Y-DCD group and 2,086  $\pm$  494 and 60  $\pm$  12 in the O-DCD group (NS). There was no PNF. Graft and patient one-year survivals were 100% in the Y-DCD group and 94% O-DCD group (NS).

**Conclusion** : In view of our experience, donor age > 55 years should not be a contraindication to DCD donation. DCD liver transplantation with young or older donors could lead to excellent results, if cold ischemia is limited to 5 hours.