

OUTCOME OF PATIENTS WITH HEPATOCELLULAR CARCINOMA LISTED FOR LIVER TRANSPLANTATION WITHIN THE EUROTRANSPLANT ALLOCATION SYSTEM. M. Adler (1), J. Lerut (2), P. Starkel (2), H. Van Vlierberghe (3), R. Troisi (3), F. De Pauw (4), A. Fancello (5), G. Bonduel (5), E. De Gendt (5), P. Vereerstraeten (5), V. Donckier (5), O. Detry (6), J. Delwaide (6), P. Michielsen (4), T. Chapelle (4), J. Pirenne (7), F. Nevens (7). (1) ULB Brussels ; (2) UCL Brussels ; (3) UZ Ghent ; (4) UZ Antwerpen ; (5) ULB Brussels ; (6) U Liège ; (7) KUL Leuven.

Because of shortage of organs, together with an increased incidence of HCC, it is more than ever crucial to optimize the prioritization criteria, for liver transplantation (LTX). Within Eurotransplant, only cirrhotic patients with Child-Pugh  $\geq$  11 and complications are receiving priority.

The **aim** of our study was to analyze, on an intention-to-treat basis, predictors of outcomes of patients listed with HCC. Using univariate and multivariate Cox analysis, various patient- and tumor-related variables were evaluated from a series of 273 HCC patients (22% of the whole series listed for cadaveric LTX for chronic liver diseases during the same period), listed in the 6 Belgian transplant centers between Oct 1<sup>st</sup>, 1999 and Oct 1<sup>st</sup>, 2004. Last follow-up was up to April 1, 2005. Population characteristics were : 79% male ; median age : 57.2 years ; HCC as the primary diagnosis : 83% ; TNM : T1-T2 : 68%, T3a : 13%, T3b : 4%, T4a : 14% ; etiology of liver disease : 40% HCV ; 32% alcohol ; down staging procedures : 52%. Five years overall intention-to-treat and post LTX survival were 60 and 70% respectively and overall recurrence rate was 8%. Most significant independent predictive factors for list failure i.e. death before delisting and delisting because of tumor progression (20% after 1 year) were : baseline MELD and Child-Pugh scores above 9 (RR 9.6, CI : 1.2-74.7) and 8 (RR 3.2, CI : 1.6-6.3) respectively and a foetoprotein above 100 ng/ml (RR 2.9, CI : 1.3-6.5). Independent predictors of post-LTX deaths were age above 60 years (RR 1.7, CI : 0.9-3.1) and pTNM above the Milan criteria (RR 2.4 ; CI : 1.2-4.4). Assessing the value of the pre LTX TNM staging by imaging compared to explant pathology revealed 32% accuracy, absence of HCC in 13%, 20% overstaging and 35% understaging. Neither adjuvant therapy nor waiting time had an impact on any of the outcomes. In **conclusion** : inside the EuroTX allocation system, our data demonstrate that priority for LTX in patients listed with HCC should be restricted to patients with a baseline aFP below 100 ng/ml, younger than 60 y and within the Milan criteria. Degree of liver failure should also be taken into account, the best cut-off being 9 and 8 for the MELD and Child-Pugh scores respectively.

A SHAM-CONTROLLED STUDY OF THE INFLUENCE OF RADIOFREQUENCY DELIVERY (THE STRETTA PROCEDURE) ON SYMPTOMS, ACID EXPOSURE AND DISTENSIBILITY OF THE GASTRO-OESOPHAGEAL JUNCTION IN GORD PATIENTS. J. Arts, P. Caenepeel, R. Vos, L. Holvoet, D. Sifrim, T. Lerut, P. Rutgeerts, J. Janssens, J. Tack. University Hospitals Leuven.

Several studies, including one sham-controlled study, have reported symptom relief in gastro-oesophageal reflux disease (GORD) patients treated with radiofrequency delivery (Stretta procedure) at the gastro-oesophageal junction (GOJ). The mechanism underlying this improvement is unclear as changes in pH monitoring are often inconsistent. Recently, it was proposed that decreased distensibility of the GOJ is involved in the symptomatic improvement observed after the Stretta procedure (Arts DDW 2005). The aim of the present study was to investigate the effect of Stretta on symptoms, acid exposure and GOJ distensibility in a double-blind randomised cross-over design.

**Methods** : Consecutive GORD patients underwent two upper gastrointestinal endoscopies with 3 months interval, during which active or sham Stretta treatment was performed in a randomised double-blind fashion. The endoscopic procedure was performed by a team which was otherwise not involved in the follow-up of these patients. Before the start of the study and 3 months after the first treatment, they underwent symptom assessment, endoscopy, manometry, 24 h esophageal pH monitoring and a barostat distensibility test of the GOJ before and after administration of 25 mg of sildenafil. Symptom scores, acid exposure, lower esophageal sphincter (LES) pressure and GOJ compliance data (mean  $\pm$  SEM) were compared using Student's t test.

**Results** : 22 GORD patients (17 females, mean age  $47 \pm 12$ ) participated in the study ; 11 received Stretta first and 11 sham first. Three months after initial sham treatment, symptom score ( $16.8 \pm 2.6$  vs.  $17.7 \pm 2.3$ , NS), acid exposure ( $9.0 \pm 1.3$  vs.  $7.5 \pm 1.8\%$  time, NS), LES pressure ( $15 \pm 2$  vs.  $13 \pm 1$  mmHg, NS) and GOJ compliance ( $14.1 \pm 4.5$  vs.  $12.8 \pm 3.0$  ml/mmHg, NS) were not significantly altered. Three months after initial Stretta procedure, no changes were observed in esophageal acid exposure ( $16.3 \pm 4.8$  vs.  $16.5 \pm 2.7\%$  time, NS) and LES pressure ( $11.9 \pm 1.1$  vs.  $13.0 \pm 2.2$  mmHg, NS). In contrast, symptom score was significantly improved ( $12.6 \pm 1.1$  vs.  $7.5 \pm 1.8$ ,  $p < 0.05$ ) and GOJ compliance was significantly decreased ( $15.8 \pm 2.5$  vs.  $8.3 \pm 2.5$  ml/mmHg,  $p < 0.05$ ). After administration of sildenafil, an esophageal smooth muscle relaxant, GOJ compliance after Stretta was normalised to pre-Stretta level ( $13.2 \pm 1.4$  vs.  $13.2 \pm 2.8$  ml/mmHg, NS), which rules out GOJ fibrosis as an underlying mechanism.

**Conclusion** : In this sham-controlled study, Stretta was associated with improvement of GERD symptoms, decreased GOJ compliance and unchanged acid exposure or LES pressure. Decreased GOJ compliance, which reflects altered LES neuromuscular function, may contribute to symptomatic benefit by decreasing refluxate volume.