Table 1. — Butyrate oxidation and TST activity in UC compared to control colon (mean ± st dev)

| | Butyrate oxidation | TST activity |
|---|---|---|
| Controls (n = 17) | 23.0 ± 13.8 | 81.6 ± 24.1 |
| UC (n = 33) | 5.6 ± 5.2 [a] | 32.5 ± 21.5 [a] |
| Mayo 0-1 (n = 12) | 10.2 ± 5.3 [a] | 50.8 ± 19.1 [a] |
| Mayo 2 (n = 5) | 2.0 ± 1.4 [a,b] | 26.3 ± 10.6 [a,b] |
| Mayo 3 (n = 13) | 2.7 ± 1.2 [a,b] | 18.1 ± 13.1 [a,b] |

Significantly different from control colon (a) and quiescent UC (b) : $p < 0.01$.

**Conclusions** : Our study suggest that impaired butyrate oxidation is closely linked to the sulphide detoxification capacity of the mucosa in ulcerative colitis. The sulphide detoxification mechanism could explain the well-documented observation that cigarette smoking is beneficial in ulcerative colitis. Smoking increases blood cyanide levels and the colon has been shown to extract cyanide from blood. Hence, this cyanide could enhance the removal of thiosulphate from the colonic mucosa and thus facilitate the metabolism of sulphide to thiosulphate.

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LIVER TRANSPLANTATION FROM DONATION AFTER CARDIAC DEATH (DCD) DONORS : BELGIAN EXPERIENCE 2002-2007. O. Detry (1), V. Donckier (2), V. Lucidi (2), D. Ysebaert (3), T. Chapelle (3), J. Lerut (4), O. Ciccarelli (4), J. Pirenne (5), D. Monbaliu (5), A. Deroover (1), P. Honoré (1), X. Rogiers (6), B. de Hemptinne (6), R. Troisi (6). (1) ULg, (2) ULB Erasme, (3) UZ Antwerpen, (4) UCL Saint-Luc, (5) KULeuven Gasthuisberg, (6) UZ Gent.

**Introduction** : DCD organ donors were recently proposed as a potential source of transplantable organs. All Belgian transplant centres developed an active program of DCD liver transplantation and participated to this study. We retrospectively reviewed the global Belgian experience in order to evaluate this experience and to analyse the posttransplant results in terms of patient and graft survivals, and in biliary complications.

**Patients and methods** : From 2003 to 2007, 58 DCD liver transplantations were performed in Belgium, 52 from Maastricht category III, 2 from category IV donors, and 4 after euthanasia. Amongst these 58 transplantations, 39 were performed with graft procured locally, and 14 from another Belgian centre and 5 from The Netherlands). Mean donor age was 44 years (range, 17-71). 32.7% were female. Mean donor BMI was 24.5. Mean ICU stay was 4.8 days (range, 0-19). Mean donor sodium level was 142.3 ± 0.8 mmol/L (mean ± SEM). Mean donor AST and GGT was 50.5 ± 5.7 U/L and 59.8 ± 12.1 U/L, respectively. Causes of brain lesions were trauma (23 cases), intracranial bleeding (17 cases) and ischemic (14 cases). All life support withdrawals were performed in the operating theatre. Mean delay between respiratory withdrawal and cardiac arrest was 14.7 min. Mean delay between respiratory withdrawal and aortic flush was 25 min. HTK was the most used preservation solution. Mean age of recipients was 55 years (range, 10-70). Mean MELD score at transplant was 15.8. Indication of liver transplantation was decompensated cirrhosis and/or hepatocarcinoma in most cases.

**Results** : Mean cold ischemia was 451 min (range, 148-770). Peak of transminases was 2,241 ± 338 UI/mL. Global patient survival was 91.3%, 81.2% and 68.1% at 1 month, 1 year and 2 years, respectively. Graft survival was 84.4%, 70.3% and 49.7% at 1 month, 1 year and 2 years, respectively. Causes of early mortality (n = 5) were operative death (n = 2), PNF, MOF and ARDS. Late deaths (n = 8) were due to accident (n = 2), malignant tumour (n = 5) and biliary sepsis. Two patients needed early retransplantation for PNF and hepatic artery thrombosis. Six patients needed later retransplantation for diffuse bile duct lesions. Eleven other patients developed biliary stenoses requiring endoscopy and/or surgery. In univariate analysis, significant donor factors for death were delay between respiratory arrest and cardiac arrest of more than 15 min, and cold ischemia of more than 6 hours. In the recipient factors, HU status of the recipient was the only significant risk factor for early death. Donor BMI > 25 was related to an icreased peak bilirubin.

**Conclusion** : DCD organ donors may be a source of viable liver grafts. However actual results are inferior to the results of liver transplantation from donors after brain death, and prognostic criteria should be evaluated to improve the results. Further experience is needed to determine these risk factors.