

## **PREDICTION OF POSTOPERATIVE MORTALITY AND LONG-TERM SURVIVAL AFTER LIVER TRANSPLANTATION, BASED ON PREOPERATIVE PARAMETERS**

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### **INTRODUCTION**

MELD score predicts mortality of potential liver graft recipients while waiting on the transplant list. There is no pre-engraftment model predicting postoperative mortality and long-term survival after OLTx.

### **PURPOSE**

To determine the preoperative parameters that can predict postoperative mortality and long-term survival after OLTx.

### **METHODS**

454 primary adult liver transplants were performed between 1990 and 2006. Re-transplants and multi-organ recipients were excluded. 41 (9.03%) died during the first postoperative month. 16 more (3.52%) died within the second and third postoperative months. Of the remaining 397 recipients, patient survival and graft survival censored for patient death were retrospectively analyzed.

### **RESULTS**

Total bilirubin was 172.6 and 100.2 mmol/lit ( $p < 0.0001$ ), serum creatinine was 168.9 and 114.1 mmol/lit ( $p < 0.001$ ), INR was 3.06 and 2.23 ( $p = 0.002$ ) and warm ischemia time was 1.07 and 0.93 hours ( $p = 0.003$ ) for the patients who respectively died and survived during the first 3 postoperative months. Long-survival was positively correlated with female sex [ $p = 0.001$ , Exp(B)=0.451, 95% Exp(B) CI:0.281-0.725], with recipient's age < 50 years [ $p = 0.003$ , Exp(B)=1.028, 95% Exp(B) CI:1.009-1.047] and with absence of cancer from the explant [ $p < 0.0001$ , Exp(B)=2.283, 95% Exp(B) CI:1.550-3.3362]. MELD score was not a predictor of long term survival [ $p = 0.444$ , Exp(B)=0.992, 95% Exp(B) CI:0.972-1.013].

### **CONCLUSIONS**

Postoperative (three-month) mortality after OLTx correlates with preoperative total bilirubin, serum creatinine, INR and warm ischemia time. On the other hand, long-term survival correlates with recipient's sex, age and presence of cancer in the explant. MELD score can't predict long-term survival.