

Background

A significant proportion of patients with primary sclerosing cholangitis (PSC) requires liver transplantation (LTx). Although an improvement of pruritus has been found after LTx in patients with chronic cholestatic liver diseases, the effect of this procedure on chronic fatigue, which is supposed to be central in its origin, remains controversial. PBC-40 questionnaire, initially designed for the assessment of health related quality of life (HRQoL) in primary biliary cirrhosis (PBC), has also been found to be a reliable tool in patients with PSC (*Liver Int* 2015;35:1764-71). Here we aim to assess the effect of LTx on chronic fatigue and other measures of HRQoL in patients with PSC.

Patients and Methods

- Seventy patients (47 males, mean age at LTx 35±11, Table 1) who underwent LTx for PSC in our centre between 02/2012 and 04/2018 were prospectively enrolled. SF-36 and PBC-40 were applied before LTx and at 2 time points after LTx, the first one (time point P1) at median 11 months after the procedure in all 70 patients and at median 28 months (time point P2) in 19 patients.
- Matched control group included of 72 adults without chronic or acute liver diseases (46 males, age 36±10 years).
- Kolmogorov-Smirnov tests were used to determine whether data were normally distributed. Quantitative traits were assessed using Mann-Whitney or Student's t-test, as appropriate.

Table 1. Summary of the study cohort

Variable	Results
Number of patients with PSC	70
Males / females	47 / 23
Age [years]	35 ± 11
1st HRQoL after transplantation	11 months
2nd HRQoL after transplantation	28 months

Results

- Liver transplantation caused a significant improvement of chronic fatigue assessed with fatigue domain of PBC-40 (30±10 before OLTx vs 20±8 at P1; p<0.0001, Figure 1) with further improvement at P2 (18±8).
- Significant improvement in all domains of PBC-40, in particular itch (p<0.0001) cognitive (p<0.0006) and social/emotional (p<0.0001), was seen after LTx (Figure 1).
- In terms of general well-being, evaluated with SF-36, a significant improvement caused by LTx was also observed (p<0.001 for all its domains).
- HRQoL assessed with SF-36 remained significantly worse in transplanted patients with PSC at both P1 and P2 when compared to healthy controls.

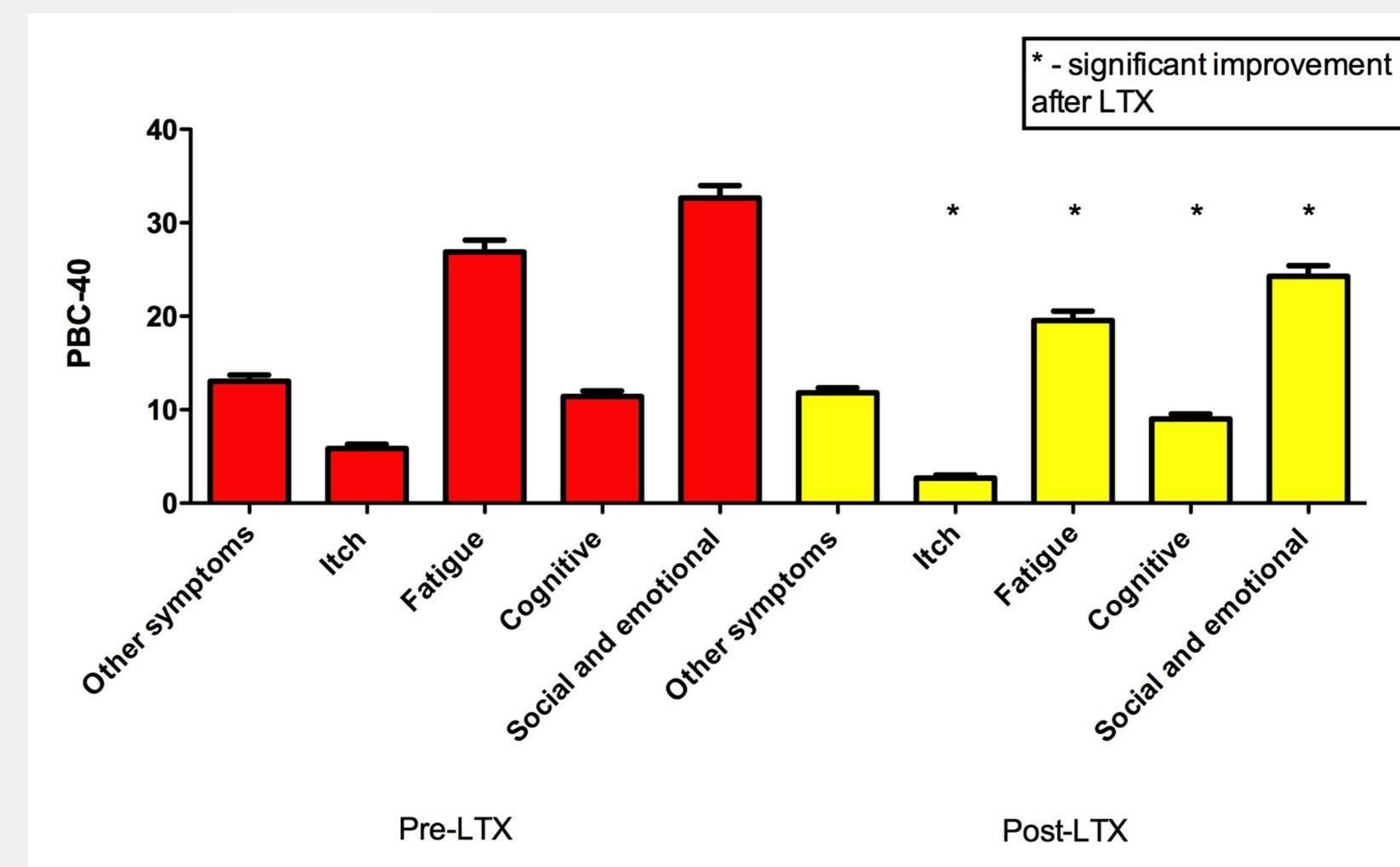


Figure 1. Changes of HRQoL according to the PBC-40 questionnaire in 70 PSC patients undergoing liver transplantation.

Conclusions

Liver transplantation in patients with PSC leads to significant decrease of chronic fatigue. It also improves other measures of health related quality of life which include itching, cognitive and emotional functions. Quality of life in these patients remains however worse as compared to matched healthy controls.

