

Supplementary Table 1.

Mortality and morbidity during the first year post-LT (defined as events requiring hospital admission; n=61).

Events post-transplantation	
Mortality during first year after liver transplantation	4 (7 %)
Rejection episodes	24 (44 %)
Number of rejection episodes	
0	30 (56 %)
1	20 (37 %)
2	3 (6 %)
3	1 (2 %)
Other	30 (56 %)

Data presented as mean (SD), median (IQR) or % as appropriate.
LT: liver transplantation.

Supplementary Table 2.

Step-wise correlation analysis of baseline **parameters** and LT-related factors with change in hip BMD Z-score between baseline and at one-year post-LT.

BMD Z-score change left hip – crude analysis		
	Crude correlation* (r or rho)	p-value
Age	-0.10	0.52
BMD left hip	-0.25	0.09
Bilirubin	0.02	0.91
<i>Nutritional status</i>		
TSF	-0.11	0.47
MAMC	0.13	0.38
BMI	0.03	0.83
<i>Inflammation status</i>		
TNF- α	-0.52	0.002
IL-6	-0.15	0.42
CRP	0.04	0.79
<i>Hormonal status</i>		
DHEA	0.30	0.09
TSH	0.25	0.16
Free T3	-0.02	0.90
Free T4	-0.02	0.92
Free Testosterone	0.19	0.29
Estradiol	0.08	0.65
Cortisol	-0.45	0.008
Growth hormone	-0.15	0.33
<i>Transplantation related factors</i>		
MELD-score	-0.12	0.41
Child-Pugh score	-0.13	0.40
Steroid dose pre-LT	0.06	0.91
Waiting time to LT	-0.29	0.052
Cumulative steroid dose post-LT	-0.23	0.15
BMD Z-score change left hip – adjusted analysis		
	Pearsson's partial correlation coefficient (r) adjusted for age, sex, MELD-score and cholestatic etiology, bisphosphonate treatment and morbidity post-LT	p-value
TNF-α	-0.47	0.012
Cortisol	-0.49	0.008

BMD, bone mineral density; DHEA, dehydroepiandrosterone; TSH, thyroid stimulating hormone; T3, free Triiodothyronine; T4, free Thyroxine; TSF, triceps skin fold thickness; MAMC, mid arm muscular circumference; BMI, body mass index; LT, liver transplantation.

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*In the crude analysis, when the association between low bone mass (osteopenia or osteoporosis) and hormones DHEA, free testosterone and estradiol was tested, sex was included as a covariate. Those hormones, inflammatory markers and markers of nutritional status, which were statistically significantly associated with hip BMD Z-score change in the crude analysis were included in a Pearson’s partial correlation analysis with the pre-defined covariables age, sex, MELD- score and bisphosphonate treatment. Cholestatic etiology and morbidity post-LT were also included in this model because they were significantly associated with hip BMD Z-score change in the crude analyses. Significant results ($p<0.05$) are indicated in bold

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