A T2* magnetic resonance imaging study of pancreatic iron overload in thalassemia major

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Supplementary Table 1

Table 1. Clinical and radiological correlates of pancreatic MRI measurements in patients with thalassaemia major.

All cases n=72	Ferritin mean 6259 (605-14381)	PanT2* mean 12.2 (1.3-61.9)	Heart T2* mean 24.1 (3.6-58.0)	Liver T2* mean 5.29 (1.1-25.1)	Log-liver T2* mean 0.58 (0.04-1.4)
Pancreas volume (mm³) mean 4377 (1245-6646)	p=NS	p=NS	p=NS	p=NS	p=NS
Pancreas T2* (ms) Mean 12.2 (1.3-61.9)	p=NS	ND	p=0.008 (r=0.32)	p=0.09 (r=0.21)	p=NS
Pancreas T2* Log mean 0.88 (0.11-1.79)	p=NS	ND	p<0.001 (r=0.52)	p=0.004 (r=0.34)	p=0.007 (r=0.33)
Diabetic n=21	*Ferritin mean 5327 (719-14381)*	*PanT2* mean 12.3 (1.5-61.9)*	*Heart T2* mean 21.1(3.6-44.4)*	*Liver T2* mean 6.9 (1.1-25.1)*	*Log-liver T2* mean 0.60 (0.04-1.4)*
Pancreas volume 2960 +/- 173 SE	p=NS	p=NS	p=NS	p=NS	p=NS
Pancreas T2* 12.3 +/- 3.5 SE	p=NS	ND	p=0.08 (r=0.39)	p=NS	p=NS
Log Pancreas T2* 0.85 +/- 0.09 SE	p=NS	ND	p=0.012 (r=0.54)	p=0.09 (r=0.38)	p=NS
Non-Diabetic n=51	*Ferritin mean 6661 (605-13450)*	*PanT2* mean 12.2 (1.3-53.7)*	*Heart T2* mean 25.5 (4.8-58.0)*	*Liver T2* mean 4.6 (1.1-22.7)*	*Log-liver T2* mean 0.54 (0.04-1.36)*
Pancreas volume 4952 +/- 173 SE	p=NS	p=0.06 (r=0.31)	p=0.79	p=NS	p=NS
Pancreas T2* 12.2 +/- 2.0 SE	p=NS	ND	p=0.038 (r=0.3)	p=NS	p=NS
Log Pancreas T2* 0.88 +/- 0.06 SE	p=NS	ND	p<0.001 (r=0.52)	p=0.013 (r=0.36)	p=0.015 (r=0.35)

n=number of cases; SE: standard error of mean; HOMA: homeostatic assessment model; B: beta cell; IR: insulin resistance; Pan: pancreas; Log: logarithmic transformation; ND: not done; NS: not significant. Numbers represent mean value with range in bracket for each group. Normal references: Ferritin 67-899 pmol/l, pancreatic T2*: 23.1-53ms, heart T2* >20ms, liver T2*>6.3 ms; log liver T2* >0.8; log pancreas T2* >1.36

Supplementary Table 2

Table 2. Homeostasis model assessment and MRI correlations in cases without clinical diabetes.

Non-Diabetic n=51 (normal range)	HOMA-B (130-450)	HOMA-IR (0.8-1.6)	Fasting C-Pep (0.2-1.0)	Fasting Insulin (3-8)
Mean (range)	71.9 (9-181)	1.33 (0.25-2.77)	0.58 (0.24-1.03)	5.72 (1-12)
% abnormal	90%	33%	0%	17%
Heart T2*	p<0.001 (r=0.67)	p=0.014 (r=0.34)	p=0.002 (r=0.42)	p<0.001 (r=0.51)
Log liver T2*	p=0.043 (r=0.28)	p=NS	p=NS	p=NS
Pancreas volume	p=NS	p=NS	p=NS	p=NS
Pancreas T2*	p=0.05 (r=0.28)	p=NS	p=NS	p=NS
Log pancreas T2*	p=0.005 (r=0.4)	p=0.07 (r=0.26)	p=NS	p=0.02 (r=0.34)

Legend: HOMA: homeostasis model assessment; B: beta cell; IR: insulin resistance; C-Pep: C-peptide; Log: logarithmic transformation; NS: not significant