The prevalence of frailty in patients with non-cirrhotic non-alcoholic fatty liver disease

Authors and Affiliations

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Supplementary Methods

Self-reported frailty index (SRFI) questionnaire

Do you suffer from any of the following?	YES	NO
1. Difficulty walking 100m or 100 yards		
2. Difficulty rising from chair		
3. Difficulty climbing one flight of stairs		
4. Difficulty stooping, kneeling or crouching		
5. Difficulty reaching above shoulder height		
6. Difficulty pushing/pulling large objects		
7. Difficulty lifting/carrying weights ≥10 pounds or 4.5kg		
8. Difficulty picking up a coin from table		
9. Difficulty getting dressed or bathing		
10. Feeling lonely		
11. Mood Problems		
12. Constant tiredness		
13. Poor Sleep Quality		
14. Poor physical health		
15. Poor vision		
16. Poor hearing		
17. Difficulty following a conversation		
18. Daytime sleepiness		
19. Knee pain		
20. A history of 1 or more falls in the past year		
21. A history of 1 or more broken bones in the past year		
22. Taking more than 5 different medications		
23. Poor memory		
24. Absent mindedness		

Has a medical professional diagnosed you with any of the following?	YES	NO
1. Urinary incontinence		
2. Gastrointestinal problems		
3. Lung or respiratory problems		
4. High blood pressure		
5. Angina		
6. Heart attack		
7. Diabetes		
8. Hypo/Hyperthyroidism		
9. Stroke/Transient ischemic attack		
10. High cholesterol		
11. Irregular heart rhythm		
12. Other heart problems		
13. Cataracts		
14. Glaucoma/Age related macular degeneration		
15. Arthritis		

16. Osteoporosis		
17. Cancer		
18. Varicose ulcer		
19. Cognitive Impairment/Cognitive Related Problems		
20. Other health problems (please specify):		

Lab-based frailty index (FI-LAB) standardised blood tests

Variables included in the FI-LAB:			
1	White Cell Count	19	Estimated Glomerular Filtration Rate (eGFR)
2	Neutrophil Count	20	Total Protein
3	Lymphocyte Count	21	Albumin
4	Monocyte Count	22	Total Bilirubin
5	Eosinophil Count	23	Alkaline Phosphatase
6	Basophil Count	24	Gamma Glutamyl Transferase (GGT)
7	Red cell count (RCC)	25	Aspartate Transferase (AST)
8	Haemoglobin	26	Alanine Transferase (ALT)
9	Haematocrit (HCT)	27	Glucose
10	Mean Corpuscular Volume (MCV)	28	Glycated Haemoglobin (HbA1C)
11	Mean Corpuscular Haemoglobin (MCH)	29	Urate
12	Mean Corpuscular Haemoglobin Concentration (MCHC)	30	Total Cholesterol
13	Red Cell Distribution Width (RDW)	31	High-Density Lipoprotein (HDL)
14	Platelet Count	32	Triacylglycerol (TAG)
15	Erythrocyte Sedimentation Rate (ESR)	33	C-Reactive Protein (CRP)
16	Urea	34	Insulin
17	Sodium	35	Potassium
18	Creatinine		

Supplementary Table 1: Multivariate linear regression predicting SRFI score

Variable	B (Std. Error)	t value	*p*-value
Constant	-0.26 (0.09)	-2.877	***0.005*** **
CAP (dB/m)	0.001 (0)	2.969	***0.004*** **
LSM (kPa)	0 (0.002)	0.1	0.921
Gender	0.064 (0.02)	3.106	***0.003*** **
Smoking History	-0.003 (0.016)	-0.171	0.864
Diabetes	0.039 (0.021)	1.875	0.064
Hypercholesteremia	0.051 (0.021)	2.372	***0.02*** *
Hypertension	0.034 (0.022)	1.581	0.117
Age (years)	0.002 (0.001)	1.98	0.051
BMI (kg/m^2)	0.001 (0.002)	0.716	0.476

*Dependent variable is SRFI score. SRFI = Self-reported frailty index, CAP = controlled attenuation parameter, LSM = Liver stiffness measurement, BMI = body mass index. *, $p < 0.05$; **, $p < 0.01$.*

Supplementary Table 2: Multivariate linear regression predicting FI-LAB score

Variable	B (Std. Error)	t value	*p*-value
Constant	0.048 (0.072)	0.67	0.504
CAP (dB/m)	0 (0)	0.721	0.472
LSM (kPa)	0.002 (0.001)	1.662	0.1
Gender	0.046 (0.016)	2.835	***0.006*** **
Smoking History	0.005 (0.012)	0.436	0.664
Diabetes	0.03 (0.016)	1.791	0.077
Hypercholesteremia	0.024 (0.017)	1.434	0.155
Hypertension	0.019 (0.017)	1.119	0.266
Age (years)	0 (0.001)	0.434	0.665
BMI (kg/m^2)	0 (0.001)	-0.129	0.897

*Dependent variable is FI-LAB score. FI-LAB = lab-based frailty index, CAP = controlled attenuation parameter, LSM = Liver stiffness measurement, BMI = body mass index. **, p < 0.01.*

Supplementary Table 3: Multivariate linear regression predicting 30STST score

Variable	B (Std. Error)	t value	*p*-value
Constant	26.353 (3.944)	6.681	***0.000 ******
CAP (dB/m)	0.009 (0.010)	0.916	0.363
LSM (kPa)	-0.080 (0.101)	-0.788	0.433
Gender	-2.578 (0.929)	-2.777	***0.007 *****
Smoking History	-1.458 (0.732)	-1.991	0.050
Diabetes	-1.564 (0.991)	-1.578	0.119
Hypercholesteremia	0.182 (1.023)	0.177	0.860
Hypertension	1.162 (0.971)	1.196	0.236
Age (years)	-0.111 (0.041)	-2.708	***0.008 *****
BMI (kg/m^2)	-0.161 (0.086)	-1.885	0.063

*Dependent variable is 30STST score. 30STST = 30-second sit-to-stand, CAP = controlled attenuation parameter, LSM = Liver stiffness measurement, BMI = body mass index. **, p < 0.01; ***, p < 0.001.*