# Supplementary data

Table 1a: **Univariate and multivariate logistic regression analysis of the variables associated with an elevated TE reading (≥8.0 kPa) in patients with a normal ALT (<45 U/L, n=433)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Univariate analysis** | | **Multivariate analysis\*** | |
| **Variable** | **Odds ratio (95% CI)** | **P value** | **Odds ratio (95% CI)** | **P value** |
| **BMI** | 1.11 (1.05-1.17) | **<0.001** | 1.16 (1.09-1.23) | **<0.001** |
| **Age** | 1.04 (1.01-1.06) | **0.004** | 1.03 (0.997-1.06) | 0.076 |
| **Gender** | 1.28 (0.70-2.33) | 0.425 | 1.50 (0.77-2.91) | 0.233 |
| **Type 2 diabetes as a risk factor for CLD** | 3.21 (1.74-5.92) | **<0.001** | 3.55 (1.72-7.35) | **0.001** |
| **Hazardous alcohol use as a risk factor for CLD** | 0.63 (0.30-1.30) | 0.208 |  |  |
| **Dx of Hypertension** | 3.20 (1.67-6.16) | **<0.001** |  |  |
| **Dx of Hyperlipidaemia** | 3.24 (1.68-6.23) | **<0.001** |  |  |
| **Dx of Ischaemic heart disease** | 0.64 (0.40-1.02) | 0.059 |  |  |
| **Previous smoker** | 1.53 (0.82-2.87) | 0.180 |  |  |

\*Adjusted for age/gender/ ethnicity

BMI = Body mass index; CLD = Chronic liver disease; Dx = diagnosis; kPa = kilopascal; TE = Transient elastography

Table 1b: **Univariate and multivariate logistic regression analysis of the variables associated with an elevated TE reading (≥8.0 kPa) in patients with a normal ALT (≥45 U/L, n=71)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Univariate analysis** | | **Multivariate analysis\*** | |
| **Variable** | **Odds ratio (95% CI)** | **P value** | **Odds ratio (95% CI)** | **P value** |
| **BMI** | 1.23 (1.08-1.41) | **0.002** | 1.31 (1.10-1.55) | **0.002** |
| **Age** | 1.01 (0.96-1.05) | 0.764 | 1.04 (0.978-1.10) | 0.231 |
| **Gender** | 0.52 (0.16-1.71) | 0.284 | 1.59 (0.83-7.53) | 0.570 |
| **Type 2 diabetes as a risk factor for CLD** | 2.43 (0.76-7.73) | 0.133 |  |  |
| **Hazardous alcohol use as a risk factor for CLD** | 0.61 (0.17-2.12) | 0.432 |  |  |
| **Dx of Hypertension** | 2.06 (0.70-6.09) | 0.190 |  |  |
| **Dx of Hyperlipidaemia** | 0.71 (0.24-2.12) | 0.543 |  |  |
| **Dx of Ischaemic heart disease** | omitted |  |  |  |
| **Previous smoker** | 1.71 (0.53-5.52) | 0.371 |  |  |

\*Adjusted for age/gender/ ethnicity

BMI = Body mass index; CLD = Chronic liver disease; Dx = diagnosis; kPa = kilopascal; TE = Transient elastography

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 2: Baseline characteristics of patients undergoing transient elastography with obesity as a single risk factor (n=235)** | | | |
| **Characteristic** | **LSM** | | **p value** |
| **<8.0 kPa (n=214)** | **≥8.0 kPa (n=21)** |
| **Gender – Male n (%)** | 87 (40.7%) | 9 (42.9%) | 0.845 |
| **Age\*** | 54.1 (14.7) | 56.7 (10.1) | 0.426 |
| **Ethnicity n (%)**  White  Asian  Black/ Other | 135 (63.1%)  66 (30.8%)  13 (6.1%) | 15 (71.4%)  5 (23.8%)  1 (4.8%) | 0.749 |
| **Metabolic risk factors n (%)**  Hypertension  Hyperlipidaemia | 61 (28.5%)  57 (26.6%) | 12 (57.1%)  8 (38.1%) | **0.007**  0.263 |
| **BMI kg/m2**  27.5-29.9  30-34.9  ≥35.0 | 28 (13.2%)  130 (61.0%)  55 (25.8%) | 0 (0%)  12 (57.1%)  9 (42.9%) | 0.089 |
| **Ischaemic heart disease n (%)** | 12 (5.6%) | 2 (9.5%) | 0.469 |
| **ALT U/L\*\* (n=216)** | 24 (19-36) | 34 (21-59) | **0.011** |
| **ALT ≥45 U/L (n=216)** | 26 (13.3%) | 8 (38.1%) | **0.003** |
| **Platelets 109/L\*\* (n=207)** | 250 (208.5-290.5) | 286 (210-340) | 0.143 |

\*mean (SD)

\*\* median (IQR)

ALT = Alanine aminotransferase; BMI = Body mass index; kPa = kilopascals; LSM = liver stiffness measurement; TE = transient elastography

**Table 3:** **Univariate and multivariate logistic regression analysis of the variables associated with an elevated TE reading (≥8.0 kPa) in patients with obesity as a single risk factor (n=235)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Univariate analysis** | | **Multivariate analysis\*** | |
| **Variable** | **Odds ratio (95% CI)** | **P value** | **Odds ratio (95% CI)** | **P value** |
| **BMI** | 1.13 (1.03-1.24) | **0.010** | 1.14 (1.03-1.26) | **0.012** |
| **Age** | 1.01 (0.98-1.05) | 0.425 |  |  |
| **Gender** | 1.09 (0.44-2.71) | 0.845 |  |  |
| **Dx of Hypertension** | 3.34 (1.34-8.34) | **0.010** | 3.62 (1.21-10.83) | **0.021** |
| **Dx of Hypercholesterolaemia** | 1.70 (0.67-4.30) | 0.267 |  |  |
| **Dx of Ischaemic heart disease** | 1.05 (0.35-3.14) | 0.937 |  |  |
| **Previous smoker** | 1.73 (0.66-4.53) | 0.265 |  |  |

\*adjusted for age, gender, ethnicity

BMI = Body mass index; Dx = diagnosis; kPa = kilopascal; TE = Transient elastography

**Table 4: Metabolic risk factors in patients with obesity as a single risk factor and an elevated TE reading (≥8.0 kPa)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BMI (kg/m2)** | **TE ≥8.0 kPa** | **Hypertension** | **Hyperlipidaemia** | **Obesity as the only metabolic risk factor** |
| 27.5-29.9 | 0 |  |  |  |
| 30-34.9 | 12 | 7 (58.3%) | 4 (33.3%) | 5 (41.7%) |
| ≥35.0 | 9 | 5 (55.6%) | 4 (44.4%) | 4 (44.4%) |

BMI = Body mass index; kPa = kilopascal; TE = Transient elastography