Table 1: Weighted characteristics of the study population based on LSM

|                          | Normal group (LSM<8.0, n = 1849) | Significant fibrosis (8.0 ≤ LSM<9.7, n = 59) | Advanced fibrosis (9.7 ≤ LSM<13.6, n = 39) | Cirrhosis (LSM ≥ 13.6, n = 33) | P value |
|--------------------------|----------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------|---------|
| Age (years)              | 38.071 ± 11.880                  | 40.694 ± 10.733                            | 44.305 ± 11.047                            | 43.678 ± 9.037                | 0.00022 |
| Gender                   |                                  |                                             |                                             |                               | 0.12895 |
| Male                     | 49.378                           | 50.442                                      | 71.865                                      | 49.732                        |         |
| Female                   | 50.622                           | 49.558                                      | 28.135                                      | 50.268                        |         |
| Race/Ethnicity (%)       |                                  |                                             |                                             |                               | 0.52099 |
| Non-Hispanic White       | 55.658                           | 67.754                                      | 51.633                                      | 69.813                        |         |
| Non-Hispanic Black       | 12.552                           | 7.963                                       | 16.857                                      | 10.863                        |         |
| Mexican American         | 10.426                           | 6.330                                       | 10.440                                      | 5.304                         |         |
| Other Race               | 21.364                           | 17.953                                      | 21.070                                      | 14.020                        |         |
| Diabetes (%)             |                                  |                                             |                                             |                               | <0.0000 |
| Yes                      | 3.730                            | 15.354                                      | 26.480                                      | 10.379                        |         |
| No                       | 96.290                           | 84.646                                      | 73.520                                      | 89.621                        |         |
| Broken or fractured a    |                                  |                                             |                                             |                               | 0.97555 |
| hip                      |                                  |                                             |                                             |                               |         |
| Yes                      | 0.559                            | 100.000                                     | 100.000                                     | 100.000                       |         |
| No                       | 99.441                           | 0.000                                       | 0.000                                       | 0.000                         |         |
| Broken or fractured a    |                                  |                                             |                                             |                               | 0.13142 |
| wrist                    |                                  |                                             |                                             |                               |         |
| Yes                      | 15.354                           | 3.194                                       | 100.000                                     | 100.000                       |         |
| No                       | 84.646                           | 96.806                                      | 0.000                                       | 0.000                         |         |
| Broken or fractured a    |                                  |                                             |                                             |                               | 0.97887 |
| spine                    |                                  |                                             |                                             |                               |         |
| Yes                      | 3.361                            | 1.963                                       | 7.796                                       | 100.000                       |         |
| No                       | 96.639                           | 98.037                                      | 92.204                                      | 0.000                         |         |
| Ever taken prednisone or |                                  |                                             |                                             |                               | 0.00646 |
| cortisone daily          |                                  |                                             |                                             |                               |         |
| Yes                      | 8.257                            | 100.000                                     | 100.000                                     | 41.221                        |         |
| No                       | 91.743                           | 0.000                                       | 0.000                                       | 58.779                        |         |
| Income to poverty ratio  | 3.041 ± 1.635                    | 2.987 ± 1.658                               | 3.022 ± 1.674                               | 3.463 ± 1.516                 | 0.49944 |
| BMI (Kg/m2)              | 28.484 ± 6.260                   | 31.884 ± 9.943                              | 37.385 ± 7.971                              | 44.539 ± 9.824                | <0.0000 |
| Waist circumference (cm) | 96.106 ± 15.513                  | 105.241 ± 22.925                            | 119.223 ± 18.343                            | 133.204 ± 17.322              | <0.0000 |
| Laboratory features      |                                  |                                             |                                             |                               |         |
| HbA1c (%)                | 5.451 ± 0.725                    | 6.146 ± 1.539                               | 5.849 ± 1.052                               | 5.983 ± 0.968                 | <0.0000 |
| Total cholesterol (mmol/L)| 4.851 ± 0.958                    | 4.639 ± 0.946                               | 4.933 ± 1.119                               | 5.133 ± 0.840                 | 0.08478 |
| LDL-cholesterol (mmol/L) | 2.873 ± 0.862                    | 2.551 ± 0.818                               | 2.824 ± 1.057                               | 3.299 ± 0.482                 | 0.08390 |
|                  | Mean ± SD                  | P value         |
|------------------|---------------------------|----------------|
| HDL-cholesterol (mmol/L) | 1.384 ± 0.382 1.331 ± 0.306 1.228 ± 0.517 1.113 ± 0.287 | 0.00001        |
| ALT (IU/L)       | 22.863 ± 15.991 30.302 ± 18.488 44.605 ± 41.953 30.082 ± 22.422 | <0.0000 1      |
| AST (IU/L)       | 21.594 ± 10.964 25.485 ± 11.856 32.412 ± 27.893 25.481 ± 17.371 | <0.0000 1      |
| ALP (IU/L)       | 72.796 ± 21.622 86.127 ± 27.940 76.253 ± 24.251 81.597 ± 24.664 | <0.0000 1      |
| GGT (IU/L)       | 26.864 ± 26.870 32.569 ± 30.892 62.605 ± 103.083 35.423 ± 37.252 | <0.0000 1      |
| Serum iron (umol/L) | 16.328 ± 6.682 20.269 ± 14.019 17.149 ± 6.324 13.617 ± 4.883 | 0.00002        |
| CAP (dB/m)       | 251.786 ± 59.452 273.758 ± 67.535 337.374 ± 58.126 354.222 ± 49.348 | <0.0000 1      |
| LSM (kPa)        | 4.731 ± 1.191 8.604 ± 0.548 11.126 ± 0.973 31.758 ± 20.208 | <0.0000 1      |
| Lumbar bone mineral density (g/cm²) | 1.050 ± 0.149 1.019 ± 0.144 1.071 ± 0.151 1.116 ± 0.155 | 0.00906        |

Mean±SD for continuous variables: P value was calculated by weighted linear regression model.

% for Categorical variables: P value was calculated by weighted chi-square test.