**Supplementary Table 2.** Multivariable adjusted geometric means (95% CI) of SHBG and sex hormones by features of NAFLD in boys from the NASH CRN.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **SHBG (nmol/L)** | **Estrone (pg/mL)** | **Estradiol (pg/mL)** | **DHEAS (μg/dL)** | **Androstenedione (ng/mL)** | **Testosterone (ng/mL)** |
| N | Mean (95% CI) | N | Mean (95% CI) | N | Mean (95% CI) | N | Mean (95%CI) | N | Mean (95% CI) | N | Mean (95%CI) |
| **Steatosis** |
|  Grades 0-1 | 116 | 26.2 (25.1-27.4) | 115 | 50.4 (48.9-51.8) | 107 | 101.6 (99.4-102.8) | 116 | 2.3 (2.1-2.6) | 116 | 0.69 (0.64-0.75) | 113 | 4.6 (4.1-5.2) |
|  Grade 2 | 112 | 24.9 (23.7-26.1) | 114 | 53.4 (51.9-55.0) | 110 | 92.9 (91.8-94.1) | 114 | 2.6 (2.3-2.8) | 114 | 0.63 (0.58-0.68) | 110 | 3.8 (3.4-4.2) |
|  Grade 3 | 164 | **22.0 (21.2-22.9)** | 166 | 49.6 (48.3-51.0) | 159 | 106.3 (105.8-108.9) | 166 | 2.6 (2.4-2.9) | 166 | 0.59 (0.55-0.63) | 157 | 3.2 (2.9-3.5) |
|  *P value* |  | 0.001 |  | 0.89 |  | 0.22 |  | 0.51 |  | 0.38 |  | 0.17 |
| **Portal Inflammation** |
|  Grades 0-1 | 323 | 23.4 (22.7-24.0) | 325 | 53.5 (52.6-54.4) | 310 | 103.8 (103.3-104.9) | 326 | 2.6 (2.5-2.8) | 326 | 0.67 (0.63-0.70) | 313 | 4.2 (3.9-4.5) |
|  Grade 2 | 69 | 27.3 (26.0-28.6) | 70 | **40.5 (39.3-41.6)** | 66 | 89.2 (88.0-90.5) | 70 | 2.1 (1.9-2.3) | 70 | 0.48 (0.44-0.52) | 67 | **2.2 (2.0-2.5)** |
|  *P value* |  | 0.38 |  | 0.01 |  | 0.09 |  | 0.91 |  | 0.40 |  | 0.04 |
| **Hepatic Ballooning** |
|  Grade 0 | 234 | 24.7 (23.9-25.6) | 236 | 50.6 (49.5-51.7) | 223 | 95.5 (94.6-96.5) | 237 | 2.6 (2.4-2.8) | 237 | 0.63 (0.59-0.66) | 227 | 3.7 (3.4-4.0) |
|  Grade 1 | 104 | 22.8 (21.7-23.9) | 105 | 53.1 (51.6-54.7) | 102 | 105.1 (104.3-107.8) | 105 | 2.5 (2.3-2.8) | 105 | 0.66 (0.61-0.72) | 102 | 3.9 (3.5-4.4) |
|  Grade 2 | 54 | 23.3 (21.9-24.8) | 54 | 48.3 (46.4-50.4) | 51 | **116.0 (114.2-118.9)** | 54 | 2.1 (1.8-2.5) | 54 | 0.58 (0.51-0.65) | 51 | 3.8 (3.1-4.5) |
|  *P value* |  | 0.93 |  | 0.84 |  | 0.01 |  | 0.15 |  | 0.30 |  | 0.57 |
| **Fibrosis** |
|  Stage 0 | 120 | 22.9 (21.9-24.1) | 119 | 58.3 (56.7-60.0) | 115 | 104.4 (103.2-106.9) | 120 | 3.0 (2.7-3.3) | 120 | 0.76 (0.70-0.82) | 116 | 5.3 (4.8-5.9) |
|  Stage 1  | 160 | 23.6 (22.7-24.5) | 164 | 50.2 (49.2-51.3) | 159 | 97.2 (96.2-98.1) | 164 | 2.6 (2.4-2.9) | 164 | 0.57 (0.54-0.62) | 157 | 3.5 (3.2-3.8) |
|  Stage 2 | 53 | 24.0 (22.7-25.3) | 53 | 47.1 (45.5-48.9) | 50 | 103.8 (101.1-105.9) | 53 | 1.9 (1.7-2.2) | 53 | 0.65 (0.59-0.73) | 52 | 4.2 (3.6-4.8) |
|  Stages 3-4 | 58 | 27.5 (25.8-29.3) | 58 | 43.9 (42.1-45.7) | 51 | 102.4 (100.8-103.7) | 58 | 2.1 (1.8-2.4) | 58 | 0.53 (0.47-0.58) | 54 | **2.1 (1.8-2.3)** |
|  *P value* |  | 0.32 |  | 0.04 |  | 0.82 |  | 0.44 |  | 0.81 |  | 0.02 |
| **NASH** |
|  None | 100 | 23.4 (22.1-24.7) | 99 | 56.9 (55.0-58.9) | 95 | 99.9 (98.0-102.4) | 100 | 3.8 (3.4-4.3) | 100 | 0.74 (0.68-0.81) | 96 | 4.8 (4.2-5.4) |
|  Zone 3 | 56 | 21.2 (20.0-22.5) | 57 | 48.2 (46.3-50.1) | 53 | 112.9 (109.1-115.8) | 57 | 2.5 (2.2-2.9) | 57 | 0.72 (0.65-0.81) | 57 | 4.1 (3.5-4.7) |
|  Zone 1 | 128 | 27.3 (26.5-28.1) | 130 | 46.9 (45.7-48.1) | 122 | 94.2 (93.2-95.3) | 130 | 2.0 (1.8-2.1) | 130 | 0.49 (0.46-0.52) | 121 | 2.7 (2.4-2.9) |
|  Definite | 94 | 21.5 (20.6-22.5) | 95 | 53.3 (51.7-54.9) | 92 | 107.9 (105.3-109.9) | 95 | **2.5 (2.2-2.7)** | 95 | 0.69 (0.64-0.75) | 92 | 4.4 (3.9-5.0) |
|  *P value* |  | 0.001 |  | 0.09 |  | 0.20 |  | 0.04 |  | <0.001 |  | <0.001 |
| Abbreviations: CI, confidence interval; SHBG, sex hormone binding globulin; DHEAS, dehydroepiandrosterone; NASH: non-alcoholic steatohepatitis; NAFLD, non-alcoholic fatty liver disease.Multivariable model adjusted for age, race/ethnicity, tanner stage, and BMI *z*-score. Bold indicates statistically significant findings (*P*<0.05) compared with the lowest stage/grade for each histologic feature of NAFLD. *P* value was obtained by testing for overall trend across levels of histologic NAFLD features other than NASH, or by testing any difference across groups of NASH. |