Tab. S13. Poziom metylacji wysp CpG w promotorze 0N genu *ESR2* z podziałem na liczbę łuków skrzywienia

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | *ESR2* | | | | | | | | |  |
| N |  | Me | Min. | Maks. | Q1 | Q3 | S | V | *p* |
| CpG1 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 4,64 | 4,54 | 2,83 | 7,57 | 3,77 | 5,63 | 1,25 | 27 | 0,491a |
| skrzywienie jednołukowe | 12 | 4,31 | 3,71 | 3,00 | 7,17 | 3,29 | 5,26 | 1,35 | 31 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 5,04 | 5,04 | 2,99 | 7,95 | 4,31 | 5,69 | 1,14 | 23 | 0,090a |
| skrzywienie jednołukowe | 12 | 4,35 | 4,34 | 3,13 | 6,04 | 3,60 | 5,07 | 0,92 | 21 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 5,08 | 4,98 | 3,02 | 7,97 | 3,84 | 5,97 | 1,42 | 28 | 0,337a |
| skrzywienie jednołukowe | 12 | 4,58 | 4,51 | 2,79 | 7,57 | 3,68 | 5,31 | 1,29 | 28 |
|  | | CpG2 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 5,18 | 4,79 | 2,97 | 8,04 | 4,47 | 5,82 | 1,22 | 24 | 0,562b |
| skrzywienie jednołukowe | 12 | 5,13 | 4,88 | 3,40 | 9,21 | 4,38 | 5,39 | 1,49 | 29 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 5,55 | 5,52 | 2,89 | 7,99 | 4,40 | 6,73 | 1,39 | 25 | 0,183a |
| skrzywienie jednołukowe | 12 | 4,92 | 4,96 | 3,48 | 6,71 | 4,19 | 5,67 | 0,97 | 20 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 5,69 | 5,21 | 3,40 | 11,53 | 4,26 | 6,71 | 2,08 | 37 | 0,662b |
| skrzywienie jednołukowe | 12 | 5,42 | 5,03 | 3,13 | 10,17 | 4,48 | 5,93 | 1,76 | 33 |
|  | | CpG3 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 3,83 | 3,66 | 2,50 | 5,87 | 3,30 | 4,15 | 0,80 | 21 | 0,815a |
| skrzywienie jednołukowe | 12 | 3,90 | 3,68 | 2,70 | 6,13 | 3,33 | 4,27 | 0,96 | 25 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 4,14 | 4,14 | 2,82 | 5,88 | 3,31 | 4,79 | 0,84 | 20 | 0,688a |
| skrzywienie jednołukowe | 12 | 4,03 | 4,03 | 3,10 | 5,25 | 3,62 | 4,33 | 0,55 | 14 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 4,14 | 4,13 | 2,11 | 7,25 | 3,30 | 4,54 | 1,22 | 30 | 0,663a |
| skrzywienie jednołukowe | 12 | 3,95 | 3,82 | 2,50 | 6,36 | 3,31 | 4,25 | 1,03 | 26 |
|  | | CpG4 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 3,66 | 3,44 | 2,61 | 6,00 | 2,92 | 4,47 | 0,93 | 26 | 0,984b |
| skrzywienie jednołukowe | 12 | 3,87 | 3,39 | 2,68 | 7,77 | 2,81 | 4,39 | 1,45 | 38 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 4,12 | 4,29 | 1,64 | 5,93 | 3,33 | 5,10 | 1,19 | 29 | 0,436a |
| skrzywienie jednołukowe | 12 | 3,80 | 3,71 | 2,51 | 5,70 | 3,17 | 4,30 | 0,93 | 25 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 4,24 | 3,86 | 2,13 | 8,32 | 3,06 | 5,20 | 1,50 | 35 | 0,884b |
| skrzywienie jednołukowe | 12 | 4,06 | 3,49 | 3,00 | 7,98 | 3,27 | 4,04 | 1,48 | 36 |
|  | | CpG5 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 3,20 | 2,97 | 1,46 | 5,46 | 2,57 | 3,67 | 0,99 | 31 | 0,889b |
| skrzywienie jednołukowe | 12 | 3,33 | 2,89 | 2,24 | 7,15 | 2,41 | 3,71 | 1,37 | 41 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 3,65 | 3,71 | 1,58 | 5,63 | 2,70 | 4,55 | 1,08 | 30 | 0,302a |
| skrzywienie jednołukowe | 12 | 3,24 | 3,09 | 1,80 | 5,25 | 2,53 | 3,72 | 0,98 | 30 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 3,76 | 3,17 | 1,74 | 9,46 | 2,67 | 4,87 | 1,90 | 51 | 0,465b |
| skrzywienie jednołukowe | 12 | 3,25 | 2,84 | 2,26 | 6,55 | 2,30 | 3,53 | 1,31 | 40 |
|  | | CpG6 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,70 | 2,63 | 1,78 | 4,70 | 2,26 | 2,93 | 0,69 | 26 | 0,509b |
| skrzywienie jednołukowe | 12 | 2,87 | 2,74 | 2,05 | 4,97 | 2,30 | 3,16 | 0,77 | 27 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 3,03 | 3,19 | 1,71 | 4,08 | 2,63 | 3,52 | 0,64 | 21 | 0,342a |
| skrzywienie jednołukowe | 12 | 2,78 | 2,70 | 1,90 | 4,59 | 2,32 | 3,03 | 0,73 | 26 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 3,06 | 2,71 | 1,80 | 6,12 | 2,39 | 3,47 | 1,09 | 35 | 0,662b |
| skrzywienie jednołukowe | 12 | 2,85 | 2,78 | 1,71 | 5,61 | 2,34 | 2,93 | 1,04 | 36 |
|  | | CpG7 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,88 | 2,77 | 1,45 | 5,74 | 2,32 | 3,22 | 0,91 | 31 | 0,921b |
| skrzywienie jednołukowe | 12 | 2,89 | 2,71 | 1,92 | 5,24 | 2,20 | 3,22 | 0,93 | 32 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 3,31 | 3,34 | 2,10 | 4,77 | 2,60 | 3,94 | 0,79 | 24 | 0,285a |
| skrzywienie jednołukowe | 12 | 2,98 | 2,74 | 1,72 | 4,78 | 2,42 | 3,54 | 0,88 | 30 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 3,32 | 3,03 | 1,96 | 6,09 | 2,53 | 4,06 | 1,10 | 33 | 0,391b |
| skrzywienie jednołukowe | 12 | 3,03 | 2,79 | 2,07 | 6,29 | 2,48 | 3,00 | 1,11 | 37 |
|  | | CpG8 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,43 | 2,36 | 1,84 | 3,59 | 2,22 | 2,52 | 0,37 | 15 | 0,795b |
| skrzywienie jednołukowe | 12 | 2,49 | 2,55 | 1,46 | 4,71 | 1,89 | 2,63 | 0,83 | 33 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 2,65 | 2,64 | 1,69 | 4,44 | 2,28 | 3,01 | 0,65 | 24 | 0,584a |
| skrzywienie jednołukowe | 12 | 2,52 | 2,53 | 1,52 | 3,69 | 2,09 | 2,94 | 0,60 | 24 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 2,66 | 2,42 | 1,60 | 5,38 | 1,92 | 3,01 | 0,94 | 35 | 0,819b |
| skrzywienie jednołukowe | 12 | 2,55 | 2,31 | 1,87 | 4,72 | 2,19 | 2,70 | 0,75 | 29 |
|  | | CpG9 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,06 | 1,89 | 1,32 | 3,96 | 1,60 | 2,32 | 0,60 | 29 | 0,889b |
| skrzywienie jednołukowe | 12 | 2,15 | 1,96 | 1,50 | 4,19 | 1,66 | 2,36 | 0,75 | 35 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 2,29 | 2,24 | 1,12 | 4,36 | 1,73 | 2,80 | 0,74 | 32 | 0,598a |
| skrzywienie jednołukowe | 12 | 2,15 | 1,99 | 1,38 | 3,28 | 1,58 | 2,69 | 0,66 | 31 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 2,33 | 1,94 | 1,38 | 5,22 | 1,72 | 2,61 | 0,99 | 42 | 0,787b |
| skrzywienie jednołukowe | 12 | 2,11 | 1,90 | 1,54 | 4,05 | 1,69 | 2,04 | 0,74 | 35 |
|  | | CpG10 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,78 | 2,79 | 1,24 | 4,71 | 2,14 | 3,45 | 0,93 | 34 | 0,533a |
| skrzywienie jednołukowe | 12 | 2,98 | 3,00 | 1,90 | 4,84 | 2,37 | 3,29 | 0,79 | 27 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 3,19 | 3,09 | 1,22 | 4,79 | 2,83 | 3,82 | 0,87 | 27 | 0,379a |
| skrzywienie jednołukowe | 12 | 2,92 | 2,81 | 1,51 | 4,13 | 2,54 | 3,36 | 0,74 | 25 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 3,49 | 3,15 | 2,02 | 7,98 | 2,63 | 4,04 | 1,46 | 42 | 0,439b |
| skrzywienie jednołukowe | 12 | 3,02 | 2,77 | 1,98 | 5,36 | 2,32 | 3,39 | 0,98 | 32 |
|  | | CpG11 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 2,18 | 2,14 | 1,24 | 3,17 | 1,79 | 2,63 | 0,57 | 26 | 0,704b |
| skrzywienie jednołukowe | 12 | 2,25 | 1,97 | 1,55 | 4,16 | 1,79 | 2,68 | 0,75 | 33 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 2,44 | 2,49 | 1,02 | 3,69 | 1,87 | 2,95 | 0,70 | 29 | 0,112c |
| skrzywienie jednołukowe | 12 | 2,11 | 2,11 | 1,51 | 2,94 | 1,96 | 2,29 | 0,37 | 18 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 2,52 | 2,22 | 1,47 | 5,16 | 1,84 | 3,27 | 0,92 | 37 | 0,602b |
| skrzywienie jednołukowe | 12 | 2,30 | 2,17 | 1,52 | 4,60 | 1,76 | 2,44 | 0,83 | 36 |
|  | | CpG12 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 5,67 | 5,55 | 3,46 | 9,18 | 4,39 | 6,23 | 1,48 | 26 | 0,975a |
| skrzywienie jednołukowe | 12 | 5,65 | 5,56 | 3,69 | 9,51 | 4,39 | 6,53 | 1,56 | 28 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 6,20 | 6,21 | 3,75 | 8,66 | 4,91 | 7,44 | 1,39 | 22 | 0,195a |
| skrzywienie jednołukowe | 12 | 5,61 | 5,77 | 4,21 | 6,91 | 5,14 | 6,14 | 0,82 | 15 |
| m. powierzchniowy | skrzywienie dwułukowe | 18 | 6,68 | 5,85 | 4,02 | 13,04 | 5,23 | 7,74 | 2,27 | 34 | 0,200b |
| skrzywienie jednołukowe | 12 | 5,82 | 5,31 | 4,76 | 9,45 | 4,94 | 5,98 | 1,41 | 24 |
|  | | CpG13 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 3,49 | 3,41 | 2,18 | 5,53 | 2,99 | 3,93 | 0,76 | 22 | 0,635a |
| skrzywienie jednołukowe | 12 | 3,34 | 3,12 | 1,85 | 5,74 | 2,67 | 3,91 | 1,03 | 31 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 18 | 3,62 | 3,76 | 1,88 | 5,22 | 2,79 | 4,02 | 0,94 | 26 | 0,426a |
| skrzywienie jednołukowe | 12 | 3,35 | 3,31 | 2,02 | 5,24 | 2,72 | 3,91 | 0,87 | 26 |
| m. powierzchniowy | skrzywienie dwułukowe | 17 | 3,79 | 3,39 | 2,26 | 7,53 | 2,73 | 4,03 | 1,42 | 37 | 0,444b |
| skrzywienie jednołukowe | 12 | 3,45 | 3,09 | 2,29 | 7,03 | 2,70 | 3,65 | 1,32 | 38 |
|  | | CpG14 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 19 | 4,50 | 4,46 | 3,24 | 5,97 | 3,92 | 5,05 | 0,77 | 17 | 0,836a |
| skrzywienie jednołukowe | 12 | 4,43 | 4,49 | 2,85 | 6,83 | 3,87 | 4,88 | 1,08 | 24 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 17 | 5,01 | 4,83 | 3,70 | 7,10 | 4,10 | 5,51 | 1,02 | 20 | 0,006c |
| skrzywienie jednołukowe | 12 | 4,14 | 4,17 | 3,47 | 5,19 | 3,59 | 4,53 | 0,55 | 13 |
| m. powierzchniowy | skrzywienie dwułukowe | 17 | 5,02 | 4,65 | 3,20 | 9,18 | 4,17 | 5,71 | 1,41 | 28 | 0,325b |
| skrzywienie jednołukowe | 12 | 4,56 | 4,31 | 3,65 | 7,71 | 3,88 | 4,54 | 1,12 | 25 |
|  | | CpG15 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 18 | 3,40 | 3,46 | 2,33 | 4,86 | 3,06 | 3,61 | 0,55 | 16 | 0,273a |
| skrzywienie jednołukowe | 12 | 3,14 | 2,89 | 2,29 | 5,02 | 2,69 | 3,56 | 0,75 | 24 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 17 | 3,51 | 3,61 | 2,74 | 4,16 | 3,16 | 3,90 | 0,49 | 14 | 0,615c |
| skrzywienie jednołukowe | 12 | 3,36 | 3,16 | 2,17 | 5,12 | 2,86 | 3,82 | 0,89 | 26 |
| m. powierzchniowy | skrzywienie dwułukowe | 17 | 3,66 | 3,22 | 2,48 | 6,92 | 2,83 | 4,24 | 1,10 | 30 | 0,283b |
| skrzywienie jednołukowe | 12 | 3,32 | 3,14 | 2,39 | 5,33 | 2,62 | 3,55 | 0,96 | 29 |
|  | | CpG16 | | | | | | | | |  |
| m. głęboki - strona wypukła | skrzywienie dwułukowe | 17 | 6,66 | 6,45 | 4,83 | 9,32 | 5,83 | 7,19 | 1,29 | 19 | 0,669a |
| skrzywienie jednołukowe | 11 | 6,45 | 6,05 | 4,83 | 8,91 | 5,62 | 7,32 | 1,18 | 18 |
| m. głęboki - strona wklęsła | skrzywienie dwułukowe | 16 | 7,19 | 6,89 | 5,99 | 9,92 | 6,31 | 7,79 | 1,18 | 16 | 0,109b |
| skrzywienie jednołukowe | 10 | 5,90 | 6,75 | 0,00 | 6,94 | 5,98 | 6,86 | 2,12 | 36 |
| m. powierzchniowy | skrzywienie dwułukowe | 15 | 7,44 | 7,25 | 3,99 | 10,59 | 6,01 | 8,69 | 1,86 | 25 | 0,148b |
| skrzywienie jednołukowe | 11 | 6,59 | 6,40 | 4,94 | 9,98 | 5,60 | 6,56 | 1,51 | 23 |

miary tendencji centralnych i rozproszenia podane w procentach; N – liczności; – średnia; Me – mediana; Min. – minimum; Maks. – maksimum; Q1 – dolny kwartyl; Q3 – górny kwartyl; S – odchylenie standardowe; V – współczynnik zmienności; a – test t-Studenta; b – test U Manna-Whitneya; c – test t-Studenta z niezależną estymacją wariancji

Table 4. Genotype and allele frequencies – case only

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Progression | | | | | | | | | MCA | | | | | | | | | Beighton | | | | | | | | | Thoracic curve | | | | | | | | |
| A/G | No | | Yes | | HWE | Χ2  p-val | OR  [CI] | model | A/G | ≤ 50° | | > 50° | | HWE | Χ2  p-val | OR  [CI] | model | A/G | ≤ 3 | | ≥ 4 | | HWE | Χ2  p-val | OR  [CI] | model | A/G | Lenke 1  /Ponseti IV | | Lenke 3  /Ponseti III | | HWE | Χ2  p-val | OR  [CI] | model |
| N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| rs9916809 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A¹ | 22 | 21 | 14 | 15 |  | .31 | 0.69 [0.33-1.43] | A vs C | A¹ | 27 | 21 | 9 | 13 |  | .12 | 0.52 [0.23-1.19] | A vs C | A¹ | 7 | 13 | 29 | 20 |  | .19 | 0.56 [0.23-1.36] | A vs C | A¹ | 18 | 15 | 18 | 23 |  | .19 | 0.62 [0.3-1.28] | A vs C |
| C | 84 | 79 | 78 | 85 | C | 99 | 79 | 63 | 88 | C | 49 | 88 | 113 | 80 | C | 100 | 85 | 62 | 78 |
| AA¹ | 2 | 4 | 0 | 0 | 1 | .18 | 4.52 [0.21-96.49] | AA vs AC+CC | AA¹ | 2 | 3 | 0 | 0 | .72 | .28 | 2.97 [0.14-63.53] | AA vs AC+CC | AA¹ | 0 | 0 | 2 | 3 | .72 | .37 | 2.05 [0.1-44.05] | AA vs AC+CC | AA¹ | 0 | 0 | 2 | 5 | 1 | .08 | 7.73 [0.36-16.53] | AA vs AC+CC |
| AC | 18 | 34 | 14 | 30 | .29 | 2.22 |  | AC | 23 | 37 | 9 | 24 | .10 | 2.88 |  | AC | 7 | 25 | 25 | 35 | .17 | 2.62 |  | AC | 18 | 31 | 14 | 34 | .17 | 2.67 |  |
| CC | 33 | 62 | 32 | 68 | .45 | 0.72 [0.31-1.67] | CC vs AC+AA | CC | 38 | 60 | 27 | 73 | .14 | 0.51 [0.2-1.26] | CC vs AC+AA | CC | 21 | 75 | 44 | 61 | .22 | 0.54 [0.2-1.45] | CC vs AC+AA | CC | 41 | 69 | 24 | 59 | .33 | 0.66 [0.28-1.53] | CC vs AC+AA |
| rs2277700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A¹ | 95 | 90 | 70 | 74 |  | <.01 | 0.34 [0.16-0.74] | A vs G | A¹ | 107 | 85 | 58 | 78 |  | .24 | 0.61 [0.31-1.35] | A vs G | A¹ | 42 | 75 | 123 | 85 |  | .08 | 0.51 [0.24-1.1] | A vs G | A¹ | 95 | 81 | 70 | 85 |  | .37 | 0.71 [0.33-1.52] | A vs G |
| G | 11 | 10 | 24 | 26 | G | 19 | 15 | 16 | 22 | G | 14 | 25 | 21 | 15 | G | 23 | 19 | 12 | 15 |
| AA¹ | 43 | 81 | 26 | 55 | .44 | <.01 | 3.47 [1.42-8.52] | AA vs AG+GG | AA¹ | 46 | 73 | 23 | 62 | .62 | .26 | 1.65 [0.69-3.92] | AA vs AG+GG | AA¹ | 16 | 57 | 53 | 74 | .63 | .11 | 2.09 [0.84-5.22] | AA vs AG+GG | AA¹ | 40 | 68 | 29 | 71 | .57 | .75 | 1.15 [0.48-2.73] | AA vs AG+GG |
| AG | 9 | 17 | 18 | 38 | <.01 | 2.59 |  | AG | 15 | 24 | 12 | 32 | .25 | 1.48 |  | AG | 10 | 36 | 17 | 24 | .09 | 1.86 |  | AG | 15 | 25 | 12 | 29 | .39 | 2.49 |  |
| GG | 1 | 2 | 3 | 6 | .25 | 0.28 [0.03-2.81] | AA vs AG+GG | GG | 2 | 3 | 2 | 5 | .58 | 0.57 [0.08-4.26] | AA vs AG+GG | GG | 2 | 7 | 2 | 3 | .32 | 0.37 [0.05-2.78] | AA vs AG+GG | GG | 4 | 7 | 0 | 0 | .09 | 0.15 [0.01-2.84] | AA vs AG+GG |
| rs2377005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | 6 | 6 | 10 | 11 |  | .19 | 0.5 [0.18-1.44] | T vs C | C | 8 | 6 | 8 | 11 |  | .26 | 0.56 [0.2-1.56] | T vs C | C¹ | 5 | 9 | 11 | 8 |  | .77 | 0.84 [0.28-2.55] | C vs T | C¹ | 7 | 6 | 9 | 11 |  | .2 | 0.51 [0.18-1.43] | C vs T |
| T¹ | 100 | 94 | 84 | 89 | T¹ | 118 | 94 | 66 | 89 | T | 51 | 91 | 133 | 92 | T | 111 | 94 | 73 | 89 |
| CC | 2 | 4 | 3 | 6 | .004 | .55 | 0.58 [0.09-3.6] | CC vs TC+TT | CC | 3 | 5 | 2 | 5 | <.01 | .89 | 0.88 [0.14-5.49] | CC vs TC+TT | CC¹ | 1 | 4 | 4 | 6 | <.01 | .68 | 1.59 [0.17-14.86] | CC vs TC+TT | CC¹ | 2 | 3 | 3 | 7 | <.01 | .38 | 2.25 [0.36-14.1] | CC vs TC+TT |
| TC | 2 | 4 | 4 | 9 | .31 | 1.43 |  | TC | 2 | 3 | 4 | 11 | .37 | 1.26 |  | TC | 3 | 11 | 3 | 4 | .81 | 1.04 |  | TC | 3 | 5 | 3 | 7 | .31 | 1.52 |  |
| TT¹ | 49 | 92 | 40 | 85 | .24 | 2.14 [0.59-7.85] | TT vs TC+CC | TT¹ | 58 | 92 | 31 | 84 | .20 | 2.25 [0.63-7.95] | TT vs TC+CC | TT | 24 | 86 | 65 | 90 | .51 | 1.55 [0.42-5.76] | TT vs TC+CC | TT | 54 | 92 | 35 | 85 | .33 | 0.54 [0.15-1.91] | TT vs TC+CC |
| rs11658743 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | 6 | 6 | 8 | 9 |  | .43 | 0.65 [0.22-1.93] | C vs T | T | 8 | 6 | 6 | 8 |  | .64 | 0.77 [0.26-2.31] | C vs T | T¹ | 2 | 4 | 12 | 8 |  | .36 | 2.46 [0.53-11.37] | T vs C | T¹ | 6 | 5 | 8 | 10 |  | .20 | 0.5 [0.17-1.49] | T vs C |
| C¹ | 100 | 94 | 86 | 91 | C¹ | 118 | 94 | 68 | 92 | C | 54 | 96 | 132 | 92 | C | 112 | 95 | 74 | 90 |
| TT | 3 | 6 | 4 | 9 | <.01 | .58 | 00.65 [0.14-3.04] | TT vs TC+CC | TT | 4 | 6 | 3 | 8 | <.01 | .74 | 0.77 [0.16-3.64] | TT vs TC+CC | TT¹ | 1 | 4 | 6 | 8 | <.01 | .40 | 2.46 [0.28-21.36] | TT vs TC+CC | TT¹ | 3 | 5 | 4 | 10 | <.01 | .37 | 2.02 [0.43-9.54] | TT vs TC+CC |
| TC | 0 | 0 | 0 | 0 | .58 | 1.25 |  | TC | 0 | 0 | 0 | 0 | .74 | 1.14 |  | TC | 0 | 0 | 0 | 0 | .40 | 1.57 |  | TC | 0 | 0 | 0 | 0 | .37 | 1.42 |  |
| CC¹ | 50 | 94 | 43 | 91 | .58 | 1.55 [0.33-7.32] | CC vs TC+TT | CC¹ | 59 | 94 | 34 | 92 | .74 | 1.3[0.28-6.16] | CC vs TC+TT | CC | 27 | 96 | 66 | 92 | .40 | 0.41 [0.05-3.55] | CC vs TC+TT | CC | 56 | 95 | 37 | 90 | .37 | 0.5 [0.11-2.34] | CC vs TC+TT |
| rs11077401 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T | 7 | 7 | 33 | 35 |  | <.01 | 0.13 [0.05-0.31] | G vs T | T | 7 | 7 | 33 | 35 |  | <.01 | 0.22 [0.11-0.48] | G vs T | T | 15 | 27 | 25 | 17 |  | .13 | 0.57 [0.28-1.19] | G vs T | T¹ | 21 | 18 | 19 | 23 |  | .35 | 0.72 [0.36-1.44] | T vs G |
| G¹ | 99 | 93 | 61 | 65 | G¹ | 99 | 93 | 61 | 65 | G¹ | 41 | 73 | 119 | 83 | G | 97 | 82 | 63 | 77 |
| TT | 2 | 4 | 9 | 19 | .01 | .01 | 0.17 [0.03-0.81] | TT vs TG+GG | TT | 4 | 6 | 7 | 19 | <.01 | .05 | 0.29 [0.08-1.07] | TT vs TG+GG | TT | 5 | 18 | 6 | 8 | .01 | .17 | 0.42 [0.12-1.5] | TT vs TG+GG | TT¹ | 6 | 10 | 5 | 12 | .02 | .75 | 1.23 [0.35-4.33] | TT vs TG+GG |
| TG | 3 | 6 | 15 | 32 | <.01 | 3.47 |  | TG | 6 | 10 | 12 | 32 | <.01 | 2.46 |  | TG | 5 | 18 | 13 | 18 | .21 | 1.52 |  | TG | 9 | 15 | 9 | 22 | .44 | 1.21 |  |
| GG¹ | 48 | 91 | 23 | 49 | <.01 | 10.01 [3.39-29.62] | GG vs TG+TT | GG¹ | 53 | 84 | 18 | 49 | <.01 | 5.59 [2.2-14.23] | GG vs TG+TT | GG¹ | 18 | 64 | 53 | 74 | .36 | 1.55 [0.61-3.94] | GG vs TG+TT | GG | 44 | 75 | 27 | 66 | .34 | 0.66 [0.28-1.57] | GG vs TG+TT |
| rs2376999 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T¹ | 99 | 93 | 79 | 84 |  | .04 | 0.37 [0.15-0.99] | T vs C | T¹ | 113 | 90 | 65 | 88 |  | .69 | 0.83 [0.34-2.05] | T vs C | T¹ | 48 | 86 | 130 | 90 |  | .35 | 0.64 [0.26-1.64] | T vs C | T | 107 | 91 | 71 | 87 |  | .36 | 0.66 [0.27-1.61] | C vs T |
| C | 7 | 7 | 15 | 16 | C | 13 | 10 | 9 | 12 | C | 8 | 14 | 14 | 10 | C¹ | 11 | 9 | 11 | 13 |
| TT¹ | 47 | 89 | 34 | 72 | .19 | .04 | 3 [1.03-8.67] | TT vs TC+CC | TT¹ | 52 | 83 | 29 | 78 | .11 | .61 | 1.3 [0.47-3.61] | TT vs TC+CC | TT¹ | 21 | 75 | 60 | 83 | .12 | .34 | 1.67 [0.58-4.79] | TT vs TC+CC | TT | 50 | 85 | 31 | 76 | .54 | .25 | 0.56 [0.2-1.53] | TT vs TC+CC |
| TC | 5 | 9 | 11 | 23 | .05 | 2.06 |  | TC | 9 | 14 | 7 | 19 | .71 | 1.11 |  | TC | 6 | 21 | 10 | 14 | .39 | 1.37 |  | TC | 7 | 12 | 9 | 22 | .40 | 1.27 |  |
| CC | 1 | 2 | 2 | 4 | .49 | 0.43 [0.04-4.93] | CC vs TC +TT | CC | 2 | 3 | 1 | 3 | .89 | 1.18 [0.1-13.48] | CC vs TC +TT | CC | 1 | 4 | 2 | 3 | .83 | 0.77 [0.07-8.86] |  | CC¹ | 2 | 3 | 1 | 2 | .78 | 0.71 [0.06-8.13] | CC vs TC +TT |
| rs8068674 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T¹ | 44 | 42 | 36 | 39 |  | .65 | 0.88 [0.49-1.55] | T vs C | T | 46 | 37 | 34 | 47 |  | .16 | 0.66 [0.37-1.19] | C vs T | T | 24 | 43 | 56 | 40 |  | .71 | 0.84 [0.47-1.67] | C vs T | T | 48 | 42 | 32 | 39 |  | .04 | 0.88 [0.49-1.57] | C vs T |
| C | 60 | 58 | 56 | 61 | C¹ | 78 | 63 | 38 | 53 | C¹ | 32 | 57 | 84 | 60 | C¹ | 66 | 58 | 50 | 61 |
| TT¹ | 8 | 15 | 9 | 19 | .58 | .59 | 0.75 [0.26-2.13] | TT vs TC+CC | TT | 8 | 13 | 9 | 24 | 1 | .42 | 1.44 [0.6-3.44] | TT vs TC+CC | TT | 5 | 18 | 12 | 17 | .8 | .93 | 0.95 [0.3-3.01] | TT vs TC+CC | TT | 9 | 15 | 8 | 20 | .32 | .63 | 1.29 [0.45-3.7] | TT vs TC+CC |
| TC | 28 | 53 | 18 | 38 | .66 | 1.09 |  | TC | 30 | 48 | 16 | 43 | .17 | 1.53 |  | TC | 14 | 50 | 32 | 44 | .72 | 1.11 |  | TC | 30 | 51 | 16 | 39 | .67 | 1.08 |  |
| CC | 16 | 30 | 19 | 40 | .28 | 0.63 [0.28-1.45] | CC vs TC+TT | CC¹ | 24 | 38 | 11 | 30 | .13 | 0.44 [0.15-1.28] | CC vs TC+TT | CC¹ | 9 | 32 | 26 | 36 | .64 | 1.25 [0.49-3.16] | CC vs TC+TT | CC¹ | 18 | 31 | 17 | 41 | .31 | 1.54 [0.67-3.54] | CC vs TC+TT |
| rs4789934 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T¹ | 104 | 98 | 86 | 91 |  | .048 | 0.21 [0.04-1] | T vs C | T | 119 | 94 | 71 | 96 |  | .75 | 0.72 [0.18-2.87] | T vs C | T¹ | 52 | 93 | 138 | 96 |  | .48 | 0.57 [0.15-2.08] | T vs C | T¹ | 110 | 93 | 80 | 98 |  | .20 | 0.34 [0.07-1.66] | T vs C |
| C | 2 | 2 | 8 | 9 | C¹ | 7 | 6 | 3 | 4 | C | 4 | 7 | 6 | 4 | C | 8 | 7 | 2 | 2 |
| TT¹ | 51 | 96 | 39 | 83 | 1 | .03 | 5.23 [1.05-26.02] | TT vs TC+CC | TT | 56 | 89 | 34 | 92 | 1 | .63 | 0.59 [0.01-30.38] | TT vs TC+CC | TT¹ | 24 | 86 | 66 | 92 | 1 | .37 | 1.83 [0.48-7.06] | TT vs TC+CC | TT¹ | 51 | 86 | 39 | 95 | 1 | .15 | 3.06 [0.62-15.22] | TT vs TC+CC |
| TC | 2 | 4 | 8 | 17 | .03 | 5.23 |  | TC | 7 | 11 | 3 | 8 | .63 | 1.07 |  | TC | 4 | 14 | 6 | 8 | .37 | 1.83 |  | TC | 8 | 14 | 2 | 5 | .15 | 3.06 |  |
| CC | 0 | 0 | 0 | 0 | 1 | 0.89 [0.02-45.62] | CC vs TC+TT | CC¹ | 0 | 0 | 0 | 0 | .63 | 0.71 [0.17-2.92] | CC vs TC+TT | CC | 0 | 0 | 0 | 0 | 1 | 0.39 [0.01-20.29] | CC vs TC+TT | CC | 0 | 0 | 0 | 0 | .06 | 0.54 [0.3-1] | CC vs TC+TT |
| rs8179090 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G¹ | 35 | 33 | 40 | 43 |  | .17 | 1.50 [0.85-2.67] | G vs C | G | 49 | 39 | 26 | 35 |  | .07 | 1.17 [0.65-2.13] | C vs G | G | 45 | 31 | 30 | 54 |  | <.01 | 0.39 [0.21-0.74] | C vs G | G | 51 | 43 | 24 | 29 |  | .04 | 0.54 [0.3-1] | C vs G |
| C | 71 | 67 | 54 | 57 | C¹ | 77 | 61 | 48 | 65 | C1 | 99 | 69 | 26 | 46 | C¹ | 67 | 57 | 58 | 71 |
| GG¹ | 8 | 15 | 13 | 28 | .21 | .12 | 0.47 [0.17-1.25] | GG vs CG+CC | GG | 13 | 21 | 8 | 22 | .07 | .91 | 0.94 [0.35-2.54] | GG vs CG+CC | GG | 12 | 17 | 9 | 32 | .01 | .09 | 0.42 [0.15-1.16] | GG vs CG+CC | GG | 16 | 27 | 5 | 12 | .27 | .07 | 0.37 [0.13-1.12] | GG vs CG+CC |
| GC | 19 | 36 | 14 | 30 | .22 | 1.41 |  | GC | 23 | 37 | 10 | 27 | .65 | 1.1 |  | GC | 21 | 29 | 12 | 43 | .01 | 2.06 |  | GC | 19 | 32 | 14 | 34 | .08 | 1.67 |  |
| CC | 26 | 49 | 20 | 43 | .51 | 1.3 [0.59-2.87] | CC vs CG+GG | CC¹ | 27 | 43 | 19 | 51 | .41 | 0.71 [0.31-1.61] | CC vs CG + GG | CC¹ | 39 | 54 | 7 | 25 | .01 | 3.55 [1.34-9.38] | CC vs CG+GG | CC¹ | 24 | 41 | 22 | 54 | .20 | 1.69 [0.76-3.77] | CC vs CG+GG |

Legend: A/G – allele genotype; ¹ – risk allele/genotype; MCA – maximum Cobb angle; OR – odds ratio; CI – confidence intervals; HWE – Hardy-Weinberg equilibrium p-value