**Table 1. The analysis of the association between the rs1143627 polymorphism of the IL-1β gene and the risk of vertebrogenic lumbosacral radiculopathy**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Genotypes / alleles** | **VLSRP patients, N (f) (n = 121)** | **Healthy controls, N (f) (n = 100)** | **р** | **OR [95% CI]** | **р (χ2)** |
| Co-dominant model |
| СС | 43 (0.355) | 50 (0.50) | 0.042 | 0.551 [0.321–0.947] | 0.089 (4.92) |
| СТ | 68 (0.562) | 45 (0.450) | 0.128 | 1.568 [0.92–2.672] |
| ТТ | 10 (0.083) | 5 (0.05) | 0.489 | 1.712 [0.565–5.183] |
| Multiplicative model |
| С | 154 (0.636) | 145 (0.725) | 0.060 | 0.664 [0.442–0.996] | 0.049 (3.93) |
| Т | 88 (0.364) | 55 (0.275) | 0.060 | 1.506 [1.004–2.261] |
| Dominant model |
| СС | 43 (0.355) | 50 (0.50) | 0.042 | 0.551 [0.321–0.981] | 0.032 (4.7) |
| СТ + ТТ | 78 (0.645) | 50 (0.50) | 0.042 | 1.814 [1.056–3.115] |
| Recessive model |
| СС + СТ | 111 (0.917) | 95 (0.950) | 0.364 | 0.584 [0.193–1.491] | 0.264 (0.922) |
| ТТ | 10 (0.083) | 5 (0.050) | 0.364 | 1.712 [1.565–5.183] |

χ2, chi-square test; CI, confidence interval; f, frequency; n, number of cases; N, number of patients; OR, odds ratio; p, significance of the difference between the groups; VLSRP, vertebrogenic lumbosacral radiculopathy

**Table 2. The analysis of the association between the rs1143627 polymorphism of the *IL-1β* gene and the risk of vertebrogenic lumbosacral radiculopathy with stratification for age**

|  |  |  |
| --- | --- | --- |
| **Genotypes / alleles** | **Age ≤ 41 years** | **Age > 41 years** |
| **VLSRP patients, N (f) (n = 64)** | **Healthy controls, N (f) (n = 52)** | **р (χ2)** | **OR [95% CI]** | **VLSRP patients, N (f) (n = 57)** | **Healthy controls, N (f) (n = 48)** | **р** | **OR [95% CI]** |
| Co-dominant model |
| СС | 22 (0.344) | 28 (0.538) | 0.09 (4.91) | 0.45 [0.21–0.95] | 21 (0.368) | 22 (0.458) | 0.675 | 0.69 [0.32–1.51] |
| СТ | 36 (0.563) | 22 (0.423) | 1.75 [0.84–3.67] | 32 (0.561) | 23 (0.479) | 1.39 [0.64–3.01] |
| ТТ | 6 (0.094) | 2 (0.038) | 2.59 [0.50–13.39] | 4 (0.070) | 3 (0.063) | 1.13 [0.24–5.33] |
| Multiplicative model |
| С | 80 (0.625) | 78 (0.750) | 0.044 (4.13) | 0.52 [0.27–0.99] | 74 (0.649) | 67 (0.698) | 0.323 | 0.801 [0.45–1.43] |
| Т | 48 (0.274) | 26 (0.250) | 1.80 [1.02–3.18] | 40 (0.351) | 29 (0.302) | 1.25 [0.70–2.23] |
| Dominant model |
| СС | 22 (0.344) | 28 (0.538) | 0.037 (4.44) | 0.45 [0.21–1.003] | 21 (0.368) | 22 (0.458) | 0.27 | 0.69 [0.32–1.58] |
| СТ + ТТ | 42 (0.656) | 24 (0.462) | 2.23 [1.05–4.72] | 36 (0.632) | 26 (0.542) | 1.45 [0.66–3.17] |
| Recessive model |
| СС + СТ | 58 (0.906) | 50 (0.962) | 0.21 (1.37) | 0.39 [0.075–1.96] | 53 (0.930) | 45 (0.938) | 0.44 | 0.88 [0.19–3.02] |
| ТТ | 6 (0.094) | 2 (0.038) | 2.59 [0.50–13.39] | 4 (0.070) | 3 (0.063) | 1.13 [0.24–5.33] |

χ2, chi-square test; CI, confidence interval; f, frequency; n, number of cases; N, number of patients; OR, odds ratio; p, significance of the difference between the groups; VLSRP, vertebrogenic lumbosacral radiculopathy

**Table 3. The effects of the rs1143627 polymorphism of the *IL-1β* gene in the dominant model of inheritance on the clinical and neurological characteristics of the patients with vertebrogenic lumbosacral radiculopathy at baseline and after treatment**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter, Ме [Q1; Q3]** | **At baseline** | **After treatment** | **р (Т)** |
| **Total, n = 121** | **СС, n = 43** | **СТ + ТТ, n = 78** | **Total, n = 121** | **СС, n = 43** | **СТ + ТТ, n = 78** |
| DRS, cm | 6 [5; 7] | 5 [4; 6] | 6 [5; 7] | 4 [3; 5] | 3 [2; 4] | 5 [4; 5] | ра < 0.001рб < 0.001рв < 0.001 |
| р (U) < 0.001 | р (U) < 0.001 |
| Oswestry scale, scores | 43 [37; 46] | 37 [36; 40] | 45 [43; 47] | 33 [29; 37] | 31 [24.5; 32.5] | 35 [32.25; 38.75] | ра < 0.001рб < 0.001рв < 0.001 |
| р (U) < 0.001 | р (U) < 0.001 |
| Roland-Morris scale, scores | 16 [12; 19] | 12 [9.5; 14.5] | 18 [16; 20] | 6 [5; 8] | 5 [4; 6] | 7 [6; 8] | ра < 0.001рб < 0.001рв < 0.001 |
| р (U) < 0.001 | р (U) < 0.001 |

DRS, Digital Rating Scale; Me, median; n, number of cases; р, significance of the differences: ра at baseline vs. after treatment in all VLSRP patients; рб, at baseline vs. after treatment in the genotype CC carriers; рв, at baseline vs. after treatment in the СТ + ТТ genotype carriers; Q1, 1st quartile; Q3, 3rd quartile; Т, Wilcoxon test; U, Mann-Whitney U test