Appendix table 3: Correlations between corneal sensitivity, corneal opacities and visual acuity in the eyes of patients with CIPA.

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| --- | --- | --- | --- | --- | --- |
|  | CS | Visual acuity levels | | | |
|  |  | ≥20/25 | 20/30-20/50 | 20/80-20/200 | ≤FC 0.5m |
| CS (r) | - | **0.39** | -0.07 | -0.09 | -0.14 |
| p value | - | **0.004** | 0.64 | 0.51 | 0.30 |
| CO (r) | **-0.49** | -0.18 | **0.30** | 0.23 | 0.11 |
| p value | **<0.001** | 0.15 | **0.02** | 0.07 | 0.37 |
| Central CO (r) | -2.55 | -0.129 | -0.017 | **0.44** | **0.25** |
| p value | 0.068 | 0.309 | 0.893 | **<0.001** | **0.05** |

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Correlations were calculated between the number of eyes with preserved corneal sensitivity (CS) detected by a positive blink reflex, the number of eyes with corneal opacities (CO) and the number of eyes that reached various visual acuity levels, for the patients in the CIPA group. The calculations are based on the data on the number of eyes in each category listed in Tables 2 and 3 and Appendix table 1. The numbers stand for Spearman’s correlation coefficients (r). CO denotes eyes with any corneal opacities, whereas Central CO - eyes with central opacities. CIPA= Congenital insensitivity to pain with anhidrosis. FC= finger counting. Visual acuity refers to the best corrected acuity at the last visit. Statistically significant results are highlighted in bold and include: inverse correlation between preserved corneal sensation and the development of corneal opacities (r= -0.49, p < 0.001), positive correlation between corneal sensitivity and good visual acuity ≥20/25 (r= 0.39, p = 0.004), positive correlations between any corneal opacity and moderately decreased visual acuity (20/30-20/50) (r= 0.30, p = 0.02), between central corneal opacity and significantly decreased visual acuity (20/50-20/80) (r= 0.44, p<0.001), and between central corneal opacity and poor visual acuity (≤FC0.5M) (r= 0.25, p= 0.05).