Supplementary Materials

Table S1. Best-corrected visual acuity (BCVA), spherical equivalent (SE), intraocular pressure (IOP), and corneal endothelium cell count (cECC) measured before (baseline) and 1, 2, 3 and 4 years after after iris-claw. Artisan intraocular lens (IOL) implantation in four groups of patients: I—patients subjected to complicated cataract surgery, II—patients with postoperative aphakia, III—patients with aphakia subjected to penetrating keratoplasty, IV—patients subjected to vitrectomy and luxated IOL extraction. Results are presented as mean and standard deviation. The results were analyzed using a ANOVA test (analysis of variance test). Statistical significance was set at p < 0.05.

| Analyzed parameters | Study group | Baseline | 1 year | 2 years | 3 years | 4 years | pANOVA |
|---------------------|-------------|----------|--------|---------|---------|---------|--------|
| BCVA [logMAR]       | I (n = 42)  | 0.7 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1| < 0.001|
|                     | II (n = 38) | 0.7 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1| 0.3 ± 0.1|        |
|                     | III (n = 21)| 1.3 ± 0.3| 0.9 ± 0.1| 0.9 ± 0.1| 0.9 ± 0.1| 0.9 ± 0.1|        |
|                     | IV (n = 18) | 0.5 ± 0.1| 0.4 ± 0.1| 0.5 ± 0.1| 0.5 ± 0.1| 0.5 ± 0.1|        |
| SE [D]              | I (n = 37)  | -0.20 ± 1.44| -0.23 ± 1.04| -0.22 ± 0.90| -0.19 ± 0.69| -0.17 ± 0.66| < 0.001|
|                     | II (n = 37) | 9.44 ± 1.42| -0.12 ± 0.71| -0.09 ± 0.73| -0.04 ± 0.71| -0.16 ± 0.70|        |
|                     | III (n = 20)| 9.69 ± 1.65| -2.63 ± 1.68| -2.80 ± 1.28| -2.80 ± 1.33| -2.52 ± 1.42|        |
|                     | IV (n = 29) | 9.59 ± 1.57| -0.15 ± 1.16| -0.20 ± 1.02| -0.03 ± 1.07| -0.38 ± 1.14|        |
| IOP [mmHg]          | I (n = 42)  | 16.4 ± 3.9| 16.1 ± 2.7| 16.1 ± 2.5| 16.4 ± 2.1| 16.5 ± 2.5| < 0.001|
|                     | II (n = 38) | 15.2 ± 2.2| 16.1 ± 2.4| 15.3 ± 2.1| 15.9 ± 2.0| 16.1 ± 2.6|        |
|                     | III (n = 20)| 15.0 ± 1.5| 15.1 ± 1.1| 15.0 ± 1.2| 14.8 ± 1.2| 15.4 ± 1.4|        |
|                     | IV (n = 30) | 16.6 ± 3.5| 17.9 ± 2.8| 17.1 ± 2.7| 16.6 ± 1.6| 17.0 ± 2.9|        |
| cECC [cells/mm²]    | I (n = 42)  | 2446 ± 219| 2070 ± 145| 1983 ± 124| 1872 ± 119| 1836 ± 106| < 0.001|
|                     | II (n = 38) | 2050 ± 126| 1932 ± 108| 1836 ± 113| 1815 ± 111| 1805 ± 99|        |
|                     | III (n = 20)| 2524 ± 192| 1926 ± 206| 1799 ± 122| 1777 ± 104| 1775 ± 117|        |
|                     | IV (n = 28) | 2008 ± 130| 1822 ± 127| 1765 ± 144| 1728 ± 119| 1716 ± 135|        |

Legend: I—patients subjected to complicated cataract surgery, II—patients with postoperative aphakia, III—patients with aphakia subjected to penetrating keratoplasty, IV—patients subjected to vitrectomy and luxated IOL extraction, BCVA—best-corrected visual acuity cECC—corneal endothelium cell count, IOP—intraocular pressure, SE—spherical equivalent.

Table S2. Age and relative corneal endothelium cell count (cECCrelative) of patients subjected to iris-claw Artisan intraocular lens (IOL) implantation from different study groups: I—patients subjected to complicated cataract surgery, II—patients with postoperative aphakia, III—patients with aphakia subjected to penetrating keratoplasty, IV—patients subjected to vitrectomy and luxated IOL extraction. Results are presented as mean and standard deviation. The results were analyzed using a one-way ANOVA test (analysis of variance test). Statistical significance was set at p < 0.05.

| Study group | I (n = 42) | II (n = 39) | III (n = 21) | IV (n = 30) | pANOVA |
|-------------|-----------|------------|-------------|------------|--------|
| Age [years] | 70.3 ± 5.7| 69.7 ± 6.8 | 73.0 ± 4.6 | 69.7 ± 6.2 | 0.182  |
| cECCrelative [%] | -24 ± 7 | -12 ± 6 | -29 ± 6 | -14 ± 10 | < 0.001 |

Legend: I—patients subjected to complicated cataract surgery, II—patients with postoperative aphakia, III—patients with aphakia subjected to penetrating keratoplasty, IV—patients subjected to vitrectomy and luxated IOL extraction, cECCrelative—relative corneal endothelium cell count.
**Figure S1.** Yearly change in the corneal endothelial cell count (cECC) [cells/mm²] in patients subjected to iris-claw Artisan intraocular lens (IOL) implantation during a 4-year postoperative period.