

| Region of Interest | BFVi Metrics | Age | IOP | CDR | OCT - MRW | OCT - RNFL | VF - MD | VF - PSD |
|--------------------|--------------|--------|-------|--------|-----------|------------|---------|----------|
| Optic Disc | Dip (au) | -0.15 | -0.14 | -0.75* | 0.47 | -0.34 | | |
| | Mean (au) | -0.07 | -0.09 | -0.73* | 0.40 | -0.46 | | |
| | Peak (au) | 0.00 | -0.05 | -0.69* | 0.31 | -0.53 | | |
| | VRI (au) | 0.10 | 0.09 | -0.60 | -0.23 | -0.54 | | |
| | VFI (au) | -0.07 | 0.37 | -0.34 | -0.40 | -0.52 | | |
| | TtR (ms) | 0.41 | 0.20 | 0.03 | -0.54 | -0.20 | | |
| | TtF (ms) | 0.00 | 0.46 | 0.30 | -0.55 | -0.23 | | |
| | Skew | 0.84* | -0.01 | -0.08 | -0.26 | -0.21 | | |
| | ATI | 0.32 | -0.42 | -0.21 | 0.17 | 0.16 | | |
| Disc Vessels | BOT | -0.83* | 0.09 | 0.20 | 0.16 | 0.21 | | |
| | Dip (au) | -0.19 | -0.26 | -0.81* | 0.53 | -0.16 | | |
| | Mean (au) | -0.09 | -0.21 | -0.89* | 0.43 | -0.33 | | |
| | Peak (au) | 0.00 | -0.15 | -0.85* | 0.32 | -0.45 | | |
| | VRI (au) | 0.18 | 0.05 | -0.60 | -0.31 | -0.46 | | |
| | VFI (au) | -0.09 | 0.44 | -0.22 | -0.47 | -0.46 | | |
| | TtR (ms) | 0.41 | 0.20 | 0.03 | -0.54 | -0.20 | | |
| | TtF (ms) | 0.00 | 0.46 | 0.30 | -0.55 | -0.23 | | |
| | Skew | 0.85* | -0.07 | -0.25 | -0.11 | -0.17 | | |
| Disc Perfusion | ATI | 0.32 | -0.42 | -0.21 | 0.17 | 0.16 | | |
| | BOT | -0.81* | 0.22 | 0.44 | -0.12 | 0.14 | | |
| | Dip (au) | -0.06 | -0.20 | -0.68* | 0.41 | -0.49 | | |
| | Mean (au) | 0.00 | -0.15 | -0.66 | 0.35 | -0.57 | | |
| | Peak (au) | 0.04 | -0.10 | -0.63 | 0.27 | -0.62* | | |
| | VRI (au) | 0.09 | 0.00 | -0.58 | -0.14 | -0.62* | | |
| | VFI (au) | -0.02 | 0.24 | -0.38 | -0.26 | -0.58 | | |
| | TtR (ms) | 0.41 | 0.20 | 0.03 | -0.54 | -0.20 | | |
| | TtF (ms) | 0.00 | 0.46 | 0.30 | -0.55 | -0.23 | | |
| Fovea | Skew | 0.76* | 0.02 | 0.01 | -0.33 | -0.21 | | |
| | ATI | 0.32 | -0.42 | -0.21 | 0.17 | 0.16 | | |
| | BOT | -0.75* | 0.00 | 0.11 | 0.25 | 0.20 | | |
| | Dip (au) | -0.34 | -0.29 | -0.36 | 0.29 | -0.22 | | |
| | Mean (au) | -0.29 | -0.29 | -0.38 | 0.29 | -0.24 | | |
| | Peak (au) | -0.24 | -0.30 | -0.41 | 0.29 | -0.25 | | |
| | VRI (au) | -0.23 | -0.29 | -0.35 | 0.14 | -0.40 | | |
| | VFI (au) | -0.32 | -0.26 | -0.21 | 0.16 | -0.45 | | |
| | TtR (ms) | 0.38 | 0.07 | 0.07 | -0.52 | -0.38 | | |

Supplemental Table 2A: Comparison between ocular blood flow metrics and traditional metrics used in glaucoma management among control subjects. Pearson correlation coefficients (R) between BFVi measurements at dip, cycle mean, and peak in specific regions of the eye and conventional risk factors and indicators of glaucoma – age, intraocular pressure (IOP) in mmHg, cup to disc ratio (CDR), OCT metrics: minimum rim width (MRW) and retinal nerve fiber layer (RNFL), and visual field metrics: mean deviation (MD) and pattern standard deviation (PSD). Asterisks (*) indicate significant correlations ($p<0.05$).

VRI: volumetric rise index, VFI: volumetric fall index, TtR: time-to-rise, TtF: time-to-fall, ATI: acceleration time index, BOT: blow-out time, a.u: arbitrary units, ms: milliseconds

| Region of Interest | BFVi Metrics | Age | IOP | CDR | OCT - MRW | OCT - RNFL | VF - MD | VF - PSD |
|--------------------|--------------|--------|-------|--------|-----------|------------|---------|----------|
| Optic Disc | Dip (au) | 0.04 | -0.17 | -0.19 | -0.03 | 0.11 | 0.07 | 0.35 |
| | Mean (au) | 0.17 | -0.07 | -0.28 | -0.13 | -0.21 | 0.04 | 0.23 |
| | Peak (au) | 0.24 | 0.00 | -0.31 | -0.17 | -0.38 | 0.03 | 0.14 |
| | VRI (au) | 0.29 | 0.14 | -0.28 | -0.23 | -0.24 | 0.23 | 0.17 |
| | VFI (au) | 0.00 | 0.28 | -0.31 | -0.15 | -0.27 | 0.19 | 0.12 |
| | TtR (ms) | 0.33 | 0.40 | -0.09 | -0.29 | -0.21 | 0.35 | -0.09 |
| | TtF (ms) | -0.19 | 0.49 | -0.18 | -0.08 | -0.18 | 0.17 | -0.04 |
| | Skew | 0.62* | 0.12 | -0.48 | 0.09 | -0.16 | -0.37 | 0.30 |
| | ATI | 0.47 | -0.33 | 0.16 | -0.13 | 0.04 | 0.04 | -0.04 |
| | BOT | -0.50* | -0.02 | 0.52* | -0.16 | 0.25 | 0.58* | -0.36 |
| Disc Vessels | Dip (au) | -0.08 | -0.48 | 0.14 | -0.24 | 0.02 | 0.18 | 0.46 |
| | Mean (au) | 0.05 | -0.37 | 0.03 | -0.34 | -0.33 | 0.15 | 0.34 |
| | Peak (au) | 0.13 | -0.25 | -0.05 | -0.36 | -0.52* | 0.11 | 0.22 |
| | VRI (au) | 0.24 | -0.09 | -0.04 | -0.45 | -0.38 | 0.36 | 0.25 |
| | VFI (au) | -0.12 | 0.13 | -0.09 | -0.28 | -0.35 | 0.26 | 0.15 |
| | TtR (ms) | 0.33 | 0.40 | -0.09 | -0.29 | -0.21 | 0.35 | -0.09 |
| | TtF (ms) | -0.19 | 0.49 | -0.18 | -0.08 | -0.18 | 0.17 | -0.04 |
| | Skew | 0.62* | 0.14 | -0.53* | 0.12 | -0.19 | -0.42 | 0.28 |
| | ATI | 0.47 | -0.33 | 0.16 | -0.13 | 0.04 | 0.04 | -0.04 |
| | BOT | -0.45 | 0.02 | 0.58* | -0.17 | 0.25 | 0.61* | -0.37 |
| Disc Perfusion | Dip (au) | 0.11 | 0.06 | -0.27 | 0.06 | 0.03 | 0.10 | 0.00 |
| | Mean (au) | 0.23 | 0.12 | -0.32 | -0.05 | -0.24 | 0.07 | -0.06 |
| | Peak (au) | 0.28 | 0.14 | -0.34 | -0.10 | -0.37 | 0.05 | -0.08 |
| | VRI (au) | 0.33 | 0.27 | -0.32 | -0.14 | -0.27 | 0.22 | -0.08 |
| | VFI (au) | 0.08 | 0.36 | -0.34 | -0.09 | -0.29 | 0.20 | -0.07 |
| | TtR (ms) | 0.33 | 0.40 | -0.09 | -0.29 | -0.21 | 0.35 | -0.09 |
| | TtF (ms) | -0.19 | 0.49 | -0.18 | -0.08 | -0.18 | 0.17 | -0.04 |
| | Skew | 0.57* | 0.10 | -0.46 | 0.05 | -0.17 | -0.37 | 0.34 |
| | ATI | 0.47 | -0.33 | 0.16 | -0.13 | 0.04 | 0.04 | -0.04 |
| | BOT | -0.45 | -0.05 | 0.48 | -0.11 | 0.23 | 0.54* | -0.38 |
| Fovea | Dip (au) | -0.11 | 0.04 | 0.16 | -0.09 | -0.28 | 0.27 | -0.32 |
| | Mean (au) | -0.02 | 0.05 | 0.11 | -0.16 | -0.41 | 0.24 | -0.31 |
| | Peak (au) | 0.04 | 0.06 | 0.09 | -0.20 | -0.48 | 0.21 | -0.29 |
| | VRI (au) | 0.04 | 0.14 | 0.05 | -0.16 | -0.39 | 0.29 | -0.30 |
| | VFI (au) | -0.04 | 0.16 | 0.07 | -0.15 | -0.38 | 0.28 | -0.28 |
| | TtR (ms) | 0.21 | 0.52 | -0.32 | 0.00 | 0.11 | 0.31 | -0.05 |
| | TtF (ms) | -0.07 | 0.40 | -0.14 | 0.01 | -0.04 | 0.16 | 0.07 |
| | Skew | 0.81* | 0.08 | -0.24 | 0.02 | -0.15 | -0.26 | 0.24 |
| | ATI | 0.28 | -0.10 | -0.04 | -0.03 | 0.12 | 0.03 | -0.15 |
| | BOT | -0.71* | -0.05 | 0.28 | -0.05 | 0.22 | 0.43 | -0.30 |

Supplemental Table 2B: Comparison between ocular blood flow metrics and traditional metrics used in glaucoma management among glaucoma suspect subjects. Pearson correlation coefficients (R) between BFVi measurements at dip, cycle mean, and peak in specific regions of the eye and conventional risk factors and indicators of glaucoma – age, intraocular pressure (IOP) in mmHg, cup to disc ratio (CDR), OCT metrics: minimum rim width (MRW) and retinal nerve fiber layer (RNFL), and visual field metrics: mean deviation (MD) and pattern standard deviation (PSD). Asterisks (*) indicate significant correlations ($p<0.05$).

VRI: volumetric rise index, VFI: volumetric fall index, TtR: time-to-rise, TtF: time-to-fall, ATI: acceleration time index, BOT: blow-out time, a.u: arbitrary units, ms: milliseconds

| Region of Interest | BFVi Metrics | Age | IOP | CDR | OCT - MRW | OCT - RNFL | VF - MD | VF - PSD |
|--------------------|--------------|--------|-------|--------|-----------|------------|---------|----------|
| Optic Disc | Dip (au) | -0.32 | 0.19 | -0.64 | 0.80* | 0.76* | 0.60 | -0.70* |
| | Mean (au) | -0.16 | 0.28 | -0.74* | 0.81* | 0.86* | 0.47 | -0.71* |
| | Peak (au) | -0.03 | 0.33 | -0.76* | 0.75* | 0.88* | 0.35 | -0.68* |
| | VRI (au) | -0.19 | 0.36 | -0.62 | 0.60 | 0.72* | 0.62 | -0.76* |
| | VFI (au) | -0.03 | 0.42 | -0.55 | 0.42 | 0.62 | 0.45 | -0.69* |
| | TtR (ms) | -0.03 | 0.12 | 0.47 | -0.46 | -0.38 | 0.15 | 0.02 |
| | TtF (ms) | 0.16 | 0.25 | 0.07 | -0.23 | -0.01 | 0.05 | -0.16 |
| | Skew | 0.69* | 0.07 | -0.25 | -0.05 | 0.23 | -0.79* | 0.35 |
| | ATI | -0.32 | -0.33 | 0.15 | 0.05 | -0.22 | 0.16 | 0.26 |
| | BOT | -0.69* | -0.17 | 0.21 | 0.01 | -0.18 | 0.83* | -0.41 |
| Disc Vessels | Dip (au) | -0.40 | 0.25 | -0.32 | 0.64* | 0.52 | 0.68* | -0.73* |
| | Mean (au) | -0.18 | 0.40 | -0.44 | 0.69* | 0.68* | 0.49 | -0.74* |
| | Peak (au) | 0.05 | 0.48 | -0.50 | 0.63* | 0.73* | 0.27 | -0.67* |
| | VRI (au) | -0.23 | 0.48 | -0.12 | 0.33 | 0.34 | 0.58 | -0.64 |
| | VFI (au) | 0.02 | 0.54 | -0.21 | 0.22 | 0.35 | 0.35 | -0.56 |
| | TtR (ms) | -0.03 | 0.12 | 0.47 | -0.46 | -0.38 | 0.15 | 0.02 |
| | TtF (ms) | 0.16 | 0.25 | 0.07 | -0.23 | -0.01 | 0.05 | -0.16 |
| | Skew | 0.50 | 0.17 | -0.28 | -0.04 | 0.26 | -0.85* | 0.39 |
| | ATI | -0.32 | -0.33 | 0.15 | 0.05 | -0.22 | 0.16 | 0.26 |
| | BOT | -0.40 | -0.36 | 0.21 | -0.02 | -0.20 | 0.82* | -0.44 |
| Disc Perfusion | Dip (au) | -0.27 | 0.17 | -0.61 | 0.75* | 0.76* | 0.52 | -0.66 |
| | Mean (au) | -0.09 | 0.25 | -0.70* | 0.73* | 0.87* | 0.37 | -0.65 |
| | Peak (au) | 0.03 | 0.28 | -0.71* | 0.67* | 0.87* | 0.24 | -0.62 |
| | VRI (au) | -0.11 | 0.33 | -0.59 | 0.54 | 0.72* | 0.48 | -0.67* |
| | VFI (au) | 0.01 | 0.40 | -0.54 | 0.39 | 0.62 | 0.35 | -0.62 |
| | TtR (ms) | -0.03 | 0.12 | 0.47 | -0.46 | -0.38 | 0.15 | 0.02 |
| | TtF (ms) | 0.16 | 0.25 | 0.07 | -0.23 | -0.01 | 0.05 | -0.16 |
| | Skew | 0.66* | 0.02 | -0.32 | -0.03 | 0.19 | -0.69* | 0.37 |
| | ATI | -0.32 | -0.33 | 0.15 | 0.05 | -0.22 | 0.16 | 0.26 |
| | BOT | -0.66* | -0.21 | 0.27 | -0.03 | -0.16 | 0.73* | -0.39 |
| Fovea | Dip (au) | -0.11 | 0.42 | -0.41 | 0.50 | 0.26 | 0.59 | -0.34 |
| | Mean (au) | 0.07 | 0.38 | -0.48 | 0.45 | 0.37 | 0.35 | -0.27 |
| | Peak (au) | 0.18 | 0.33 | -0.44 | 0.38 | 0.41 | 0.18 | -0.22 |
| | VRI (au) | 0.00 | 0.38 | -0.27 | 0.34 | 0.29 | 0.43 | -0.36 |
| | VFI (au) | 0.08 | 0.43 | -0.24 | 0.21 | 0.24 | 0.30 | -0.28 |
| | TtR (ms) | -0.10 | 0.00 | 0.35 | -0.24 | 0.00 | 0.31 | -0.38 |
| | TtF (ms) | 0.18 | 0.10 | 0.15 | -0.35 | -0.01 | -0.10 | -0.14 |
| | Skew | 0.49 | 0.06 | -0.21 | -0.08 | 0.20 | -0.79* | 0.44 |
| | ATI | -0.36 | -0.14 | -0.14 | 0.42 | 0.11 | 0.45 | -0.13 |
| | BOT | -0.50 | -0.05 | 0.09 | 0.17 | -0.16 | 0.87* | -0.39 |

Supplemental Table 2C: Comparison between ocular blood flow metrics and traditional metrics used in glaucoma management among glaucoma subjects. Pearson correlation coefficients (R) between BFVi measurements at dip, cycle mean, and peak in specific regions of the eye and conventional risk factors and indicators of glaucoma – age, intraocular pressure (IOP) in mmHg, cup to disc ratio (CDR), OCT metrics: minimum rim width (MRW) and retinal nerve fiber layer (RNFL), and visual field metrics: mean deviation (MD) and pattern standard deviation (PSD). Asterisks (*) indicate significant correlations ($p<0.05$).

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