

Supplementary material 1.

Table S1. Frequencies of *VEGFA* (rs1570360, rs699947, rs3025033 and rs2146323) genotypes and alleles in females with early AMD and exudative AMD, and controls

| <i>SNP</i> <i>Genotype/allele</i> | <i>Early AMD</i> <i>N=235</i> <i>n (%)</i> | <i>Exudative</i> <i>AMD</i> <i>N=270</i> <i>n (%)</i> | <i>Control</i> <i>group</i> <i>N=235</i> <i>n (%)</i> | <i>p value*</i> | <i>p value**</i> | <i>p value***</i> |
|--------------------------------------|--|--|--|-----------------|------------------|-------------------|
| rs1570360 | | | | | | |
| GG | 115 (48.9) | 119 (44.1) | 108 (46) | 0.142 | 0.285 | 0.498 |
| AG | 88 (37.4) | 107 (39.6) | 79 (33.6) | | | |
| AA | 32 (13.6) | 44 (16.3) | 48 (20.4) | | | |
| G | 318 (67.7) | 345 (63.9) | 295 (62.8) | 0.097 | 0.646 | 0.208 |
| A | 152 (32.3) | 195 (36.1) | 177 (37.2) | | | |
| rs699947 | | | | | | |
| AA | 61 (26) | 81 (30) | 70 (29.8) | 0.618 | 0.490 | 0.182 |
| AC | 122 (51.9) | 118 (43.7) | 113 (48.1) | | | |
| CC | 52 (22.1) | 71 (26.3) | 52 (22.1) | | | |
| A | 244 (51.9) | 280 (51.8) | 253 (53.8) | 0.556 | 0.530 | 0.984 |
| C | 226 (48.1) | 260 (48.1) | 217 (46.2) | | | |
| rs3025033 | | | | | | |
| AA | 148 (63) | 199 (73.3) | 147 (62.6) | 0.374 | 0.017 | 0.032 |
| AG | 80 (34) | 64 (23.7) | 75 (31.9) | | | |
| GG | 7 (3) | 7 (2.6) | 13 (5.5) | | | |
| A | 376 (80) | 462 (85.6) | 369 (78.5) | 0.573 | 0.003 | 0.019 |
| G | 94 (20) | 78 (14.4) | 101 (21.5) | | | |
| rs2146323 | | | | | | |
| CC | 96 (40.9) | 124 (45.9) | 92 (39.1) | 0.560 | 0.308 | 0.299 |
| AC | 111 (47.2) | 109 (40.4) | 107 (45.5) | | | |
| AA | 28 (11.9) | 37 (13.7) | 36 (15.3) | | | |
| C | 303 (64.5) | 357 (66.1) | 291 (61.9) | 0.417 | 0.165 | 0.584 |
| A | 167 (35.5) | 183 (33.9) | 179 (38.1) | | | |

p – significance level and Bonferroni corrected significance level when $p < 0.05/4$; *Early AMD vs. Control group;

**Exudative AMD vs. Control group;

***Early AMD vs. Exudative AMD.

Table S2. Binomial logistic regression analysis of *VEGFA* (rs1570360, rs699947, rs3025033, and rs2146323) in females with early and exudative AMD and controls

| <i>rs1570360</i> | | | | | | | |
|------------------------------------|------------------------|--------------------|----------------|------------|--|----------------|------------|
| <i>Early AMD vs. Control group</i> | | | | | <i>Exudative AMD vs. Control group</i> | | |
| <i>Model</i> | <i>Genotype/allele</i> | <i>OR (95% CI)</i> | <i>p value</i> | <i>AIC</i> | <i>OR (95% CI)*</i> | <i>p value</i> | <i>AIC</i> |
| rs1570360 | | | | | | | |
| Codominant | G/G | 1.00 | | | 1.00 | | |
| | A/G | 1.05 (0.70-1.56) | 0.826 | 653.6 | 1.10 (0.73-1.67) | 0.648 | 647.1 |
| | A/A | 0.63 (0.37-1.05) | 0.077 | | 0.89 (0.53-1.48) | 0.640 | |
| Dominant | G/G | 1.00 | | | 1.00 | | |
| | A/G-A/A | 0.89 (0.62-1.27) | 0.52 | 655.1 | 1.02 (0.70-1.48) | 0.91 | 645.8 |
| Recessive | G/G-A/G | 1.00 | | | 1.00 | | |
| | A/A | 0.61 (0.38-1.00) | 0.049 | 651.7 | 0.85 (0.53-1.37) | 0.5 | 645.3 |
| Overdominant | G/G-A/A | 1.00 | | | 1.00 | | |
| | A/G | 1.18 (0.81-1.73) | 0.39 | 654.8 | 1.14 (0.78-1.68) | 0.5 | 645.4 |
| Additive | A | 0.84 (0.66-1.07) | 0.15 | 653.5 | 0.97 (0.76-1.24) | 0.79 | 645.7 |
| rs699947 | | | | | | | |
| Codominant | A/A | 1.00 | | | 1.00 | | |
| | A/C | 1.24 (0.81-1.90) | 0.327 | 656.6 | 0.82 (0.53-1.28) | 0.387 | 643.6 |
| | C/C | 1.15 (0.69-1.92) | 0.601 | | 1.35 (0.81-2.24) | 0.256 | |
| Dominant | A/A | 1.00 | | | 1.00 | | |
| | A/C-C/C | 1.21 (0.81-1.81) | 0.35 | 654.7 | 0.98 (0.65-1.46) | 0.91 | 645.8 |
| Recessive | A/A-A/C | 1.00 | | | 1.00 | | |
| | C/C | 1.00 (0.65-1.55) | 1 | 655.6 | 1.51 (0.97-2.34) | 0.064 | 642.4 |
| Overdominant | A/A-C/C | 1.00 | | | 1.00 | | |
| | A/C | 1.17 (0.81-1.67) | 0.41 | 654.9 | 0.72 (0.50-1.05) | 0.09 | 642.9 |
| Additive | C | 1.08 (0.84-1.40) | 0.56 | 655.2 | 1.14 (0.88-1.46) | 0.32 | 644.8 |
| rs3025033 | | | | | | | |
| Codominant | A/A | 1.00 | | | 1.00 | | |

| | | | | | | | |
|--------------|---------|------------------|-------|-------|------------------|---------------|-------|
| | A/G | 1.06 (0.72-1.56) | 0.771 | 655.6 | 0.57 (0.37-0.87) | 0.009 | 638.7 |
| | G/G | 0.53 (0.21-1.38) | 0.195 | | 0.42 (0.15-1.12) | 0.083 | |
| Dominant | A/A | 1.00 | | | 1.00 | | |
| | A/G-G/G | 0.98 (0.68-1.43) | 0.92 | 655.5 | 0.55 (0.37-0.82) | 0.0032 | 637.1 |
| Recessive | A/A-A/G | 1.00 | | | 1.00 | | |
| | G/G | 0.52 (0.21-1.34) | 0.17 | 653.7 | 0.49 (0.18-1.31) | 0.15 | 643.7 |
| Overdominant | A/A-G/G | 1.00 | | | 1.00 | | |
| | A/G | 1.10 (0.75-1.62) | 0.62 | 655.3 | 0.60 (0.39-0.91) | 0.015 | 639.9 |
| Additive | G | 0.91 (0.67-1.25) | 0.57 | 655.2 | 0.60 (0.42-0.84) | 0.0028 | 636.9 |

rs2146323

| | | | | | | | |
|--------------|---------|------------------|-------|-------|------------------|--------------|-------|
| Codominant | C/C | 1.00 | | | 1.00 | | |
| | A/C | 0.99 (0.67-1.47) | 0.977 | 656.4 | 0.65 (0.44-0.98) | 0.040 | 642.9 |
| | A/A | 0.75 (0.42-1.32) | 0.313 | | 0.65 (0.37-1.14) | 0.135 | |
| Dominant | C/C | 1.00 | | | 1.00 | | |
| | A/C-A/A | 0.93 (0.64-1.35) | 0.71 | 655.4 | 0.65 (0.45-0.95) | 0.026 | 640.9 |
| Recessive | C/C-A/C | 1.00 | | | 1.00 | | |
| | A/A | 0.75 (0.44-1.27) | 0.28 | 654.4 | 0.80 (0.47-1.36) | 0.42 | 645.1 |
| Overdominant | C/C-A/A | 1.00 | | | 1.00 | | |
| | A/C | 1.07 (0.75-1.54) | 0.71 | 655.4 | 0.73 (0.50-1.06) | 0.1 | 643.1 |
| Additive | A | 0.90 (0.69-1.17) | 0.42 | 654.9 | 0.77 (0.59-1.00) | 0.049 | 641.9 |

OR – odds ratio; CI – confident interval; *p* – significance level and Bonferroni corrected significance level when *p*<0.05/4; AIC – Akaike information criteria; *ORs adjusted for age in exudative AMD analysis.

Table S3. Frequencies of *VEGFA* (rs1570360, rs699947, rs3025033, and rs2146323) genotypes and alleles in males with early AMD and exudative AMD, and controls

| <i>SNP</i> <i>Genotype/allele</i> | <i>Early AMD</i> <i>N=104</i> <i>n (%)</i> | <i>Exudative</i> <i>AMD</i> <i>N=149</i> <i>n (%)</i> | <i>Control</i> <i>group</i> <i>N=139</i> <i>n (%)</i> | <i>p value*</i> | <i>p value**</i> | <i>p value***</i> |
|--------------------------------------|--|--|--|-----------------|------------------|-------------------|
| rs1570360 | | | | | | |
| GG | 47 (45.2) | 64 (43) | 69 (49.6) | 0.684 | 0.378 | 0.920 |
| AG | 40 (38.5) | 61 (40.9) | 46 (33.1) | | | |
| AA | 17 (16.3) | 24 (16.1) | 24 (17.3) | | | |
| G | 134 (64.4) | 189 (63.4) | 184 (66.2) | 0.686 | 0.488 | 0.818 |
| A | 74 (35.6) | 109 (36.6) | 94 (33.8) | | | |
| rs699947 | | | | | | |
| AA | 25 (24) | 38 (25.5) | 42 (30.2) | 0.488 | 0.671 | 0.844 |
| AC | 52 (50) | 69 (46.3) | 60 (43.2) | | | |
| CC | 27 (26) | 42 (28.2) | 37 (26.6) | | | |
| A | 102 (49) | 145 (48.7) | 144 (51.8) | 0.512 | 0.451 | 0.933 |
| C | 106 (51) | 153 (51.3) | 134 (48.2) | | | |
| rs3025033 | | | | | | |
| AA | 67 (64.4) | 91 (61.1) | 81 (58.3) | 0.623 | 0.756 | 0.775 |
| AG | 32 (30.8) | 52 (34.9) | 50 (36) | | | |
| GG | 5 (4.8) | 6 (4) | 8 (5.8) | | | |
| A | 166 (79.8) | 234 (78.5) | 212 (76.3) | 0.352 | 0.516 | 0.727 |
| G | 42 (20.2) | 64 (21.5) | 66 (23.7) | | | |
| rs2146323 | | | | | | |
| CC | 46 (44.2) | 67 (45) | 66 (47.5) | 0.333 | 0.744 | 0.701 |
| AC | 46 (44.2) | 60 (40.3) | 50 (36) | | | |
| AA | 12 (11.5) | 22 (14.8) | 23 (16.5) | | | |
| C | 138 (66.3) | 194 (65.1) | 182 (65.5) | 0.840 | 0.926 | 0.831 |
| A | 70 (33.7) | 104 (34.9) | 96 (34.5) | | | |

p – significance level and Bonferroni corrected significance level when $p < 0.05/4$;

*Early AMD vs. Control group;

**Exudative AMD vs. Control group;

***Early AMD vs. Exudative AMD.

Table S4. Binomial logistic regression analysis of *VEGFA* (rs1570360, rs699947, rs3025033, and rs2146323) in males with early and exudative AMD and controls

| <i>rs1570360</i> | | | | | | | |
|------------------------------------|------------------------|--------------------|----------------|------------|--|----------------|------------|
| <i>Early AMD vs. Control group</i> | | | | | <i>Exudative AMD vs. Control group</i> | | |
| <i>Model</i> | <i>Genotype/allele</i> | <i>OR (95% CI)</i> | <i>p value</i> | <i>AIC</i> | <i>OR (95% CI)*</i> | <i>p value</i> | <i>AIC</i> |
| rs1570360 | | | | | | | |
| Codominant | G/G | 1.00 | | | 1.00 | | |
| | A/G | 1.28 (0.73-2.24) | 0.395 | 337.1 | 1.49 (0.89-2.49) | 0.132 | 400.3 |
| | A/A | 1.04 (0.50-2.14) | 0.916 | | 1.08 (0.56-2.10) | 0.815 | |
| Dominant | G/G | 1.00 | | | 1.00 | | |
| | A/G-A/A | 1.20 (0.72-1.99) | 0.49 | 335.3 | 1.35 (0.84-2.15) | 0.21 | 399.1 |
| Recessive | G/G-A/G | 1.00 | | | 1.00 | | |
| | A/A | 0.94 (0.47-1.85) | 0.85 | 335.8 | 0.91 (0.49-1.69) | 0.76 | 400.6 |
| Overdominant | G/G-A/A | 1.00 | | | 1.00 | | |
| | A/G | 1.26 (0.74-2.15) | 0.39 | 335.1 | 1.46 (0.90-2.36) | 0.13 | 398.3 |
| Additive | A | 1.07 (0.76-1.50) | 0.71 | 335.7 | 1.12 (0.81-1.54) | 0.49 | 400.2 |
| rs699947 | | | | | | | |
| Codominant | A/A | 1.00 | | | 1.00 | | |
| | A/C | 1.46 (0.78-2.70) | 0.234 | 336. | 1.25 (0.72-2.20) | 0.428 | 402 |
| | C/C | 1.23 (0.61-2.47) | 0.569 | | 1.24 (0.66-2.32) | 0.505 | |
| Dominant | A/A | 1.00 | | | 1.00 | | |
| | A/C-C/C | 1.37 (0.77-2.44) | 0.28 | 334.7 | 1.25 (0.74-2.10) | 0.4 | 400 |
| Recessive | A/A-A/C | 1.00 | | | 1.00 | | |
| | C/C | 0.97 (0.54-1.72) | 0.91 | 335.8 | 1.08 (0.64-1.82) | 0.78 | 400.6 |
| Overdominant | A/A-C/C | 1.00 | | | 1.00 | | |
| | A/C | 1.32 (0.79-2.19) | 0.29 | 334.7 | 1.13 (0.71-1.80) | 0.61 | 400.4 |

| | | | | | | | |
|------------------|---------|------------------|-------|-------|------------------|-------|-------|
| Additive | C | 1.11 (0.78-1.57) | 0.56 | 335.5 | 1.11 (0.81-1.52) | 0.5 | 400.2 |
| rs3025033 | | | | | | | |
| Codominant | A/A | 1.00 | | | 1.00 | | |
| | A/G | 0.77 (0.45-1.34) | 0.360 | 336.9 | 0.90 (0.55-1.48) | 0.690 | 402 |
| | G/G | 0.76 (0.24-2.42) | 0.637 | | 0.67 (0.22-2.00) | 0.468 | |
| Dominant | A/A | 1.00 | | | 1.00 | | |
| | A/G-G/G | 0.77 (0.46-1.30) | 0.33 | 334.9 | 0.87 (0.54-1.40) | 0.57 | 400.3 |
| Recessive | A/A-A/G | 1.00 | | | 1.00 | | |
| | G/G | 0.83 (0.26-2.61) | 0.74 | 335.7 | 0.69 (0.23-2.05) | 0.5 | 400.2 |
| Overdominant | A/A-G/G | 1.00 | | | 1.00 | | |
| | A/G | 0.79 (0.46-1.36) | 0.4 | 335.1 | 0.93 (0.57-1.52) | 0.78 | 400.6 |
| Additive | G | 0.82 (0.53-1.26) | 0.36 | 335 | 0.86 (0.58-1.28) | 0.47 | 400.1 |
| rs2146323 | | | | | | | |
| Codominant | C/C | 1.00 | | | 1.00 | | |
| | A/C | 1.32 (0.76-2.29) | 0.322 | 335.6 | 1.19 (0.72-1.98) | 0.502 | 402.1 |
| | A/A | 0.75 (0.34-1.65) | 0.474 | | 0.98 (0.50-1.93) | 0.949 | |
| Dominant | C/C | 1.00 | | | 1.00 | | |
| | A/C-A/A | 1.14 (0.68-1.90) | 0.61 | 335.6 | 1.12 (0.70-1.79) | 0.62 | 400.4 |
| Recessive | C/C-A/C | 1.00 | | | 1.00 | | |
| | A/A | 0.66 (0.31-1.39) | 0.27 | 334.6 | 0.90 (0.48-1.71) | 0.76 | 400.6 |
| Overdominant | C/C-A/A | 1.00 | | | 1.00 | | |
| | A/C | 1.41 (0.84-2.37) | 0.19 | 334.1 | 1.20 (0.74-1.93) | 0.46 | 400.1 |
| Additive | A | 0.97 (0.68-1.38) | 0.85 | 335.8 | 1.03 (0.75-1.42) | 0.86 | 400.6 |

OR – odds ratio; CI – confident interval; p – significance level and Bonferroni corrected significance level when $p < 0.05/4$; AIC – Akaike information criteria; *ORs adjusted for age in exudative AMD analysis.