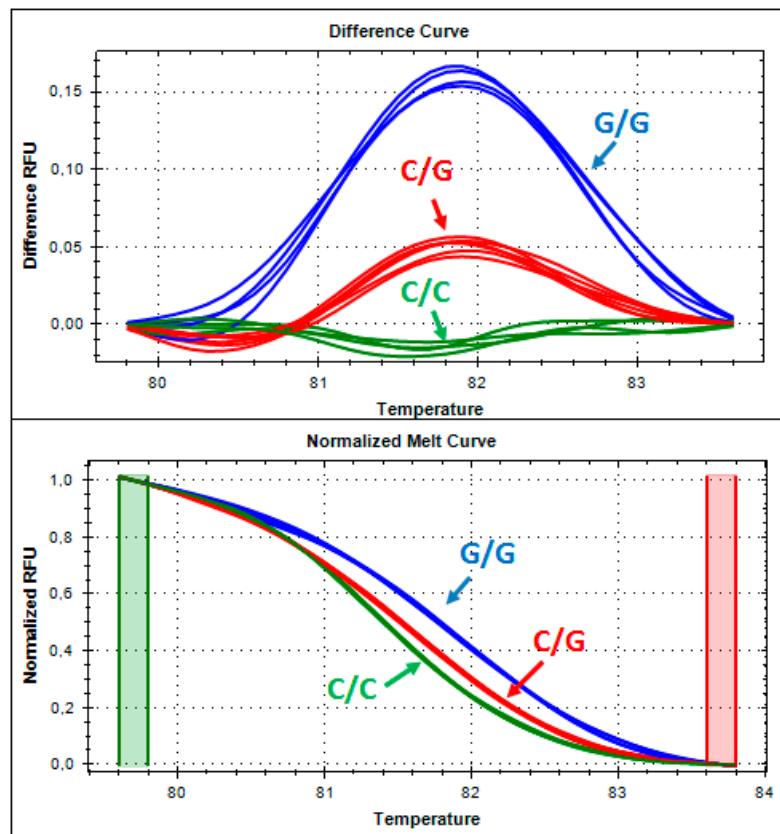
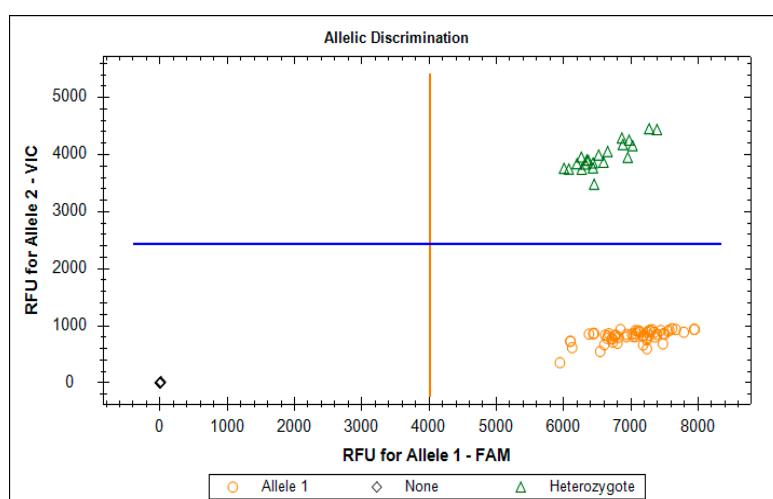


## Supplementary Information

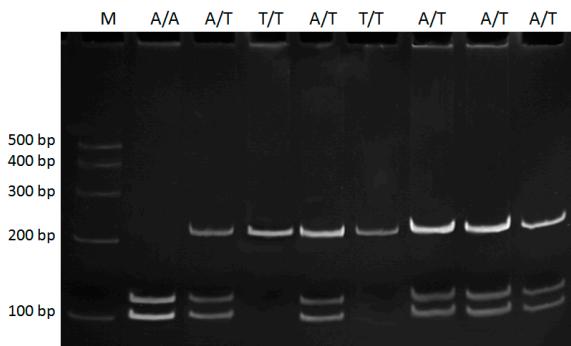
**Figure S1.** Results of high-resolution melting (HRM) analysis of the g.46438521G>C polymorphism (rs4462560) of the *NEIL1* gene. Homozygous G/G and C/G, and heterozygous C/C samples are shown on standard normalized melt curves and difference curves. Arrows indicate the different genotypes.



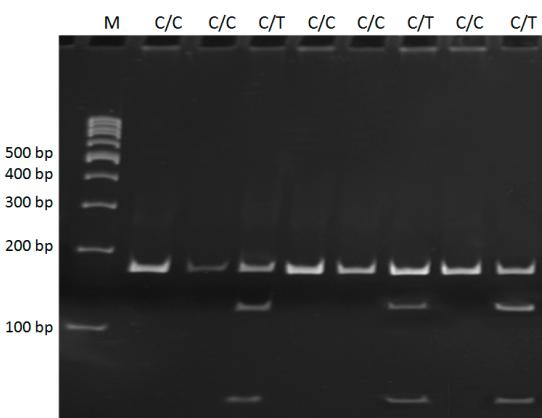
**Figure S2.** Results of the TaqMan® SNP Genotyping Assay of the c.2285T>C polymorphism (rs1136410) of the *PARP-1* gene. The X-axis represents the relative fluorescent emission for the T allele-specific probe labeled with 6-carboxyfluorescein (FAM), and the Y-axis represents the emission for the C allele-specific probe labeled with 2'-chloro-7'-phenyl-1,4-dichloro-6-carboxyfluorescein (VIC). Circles—homozygous GG; triangles—heterozygous AG. Diamonds represent no template controls.



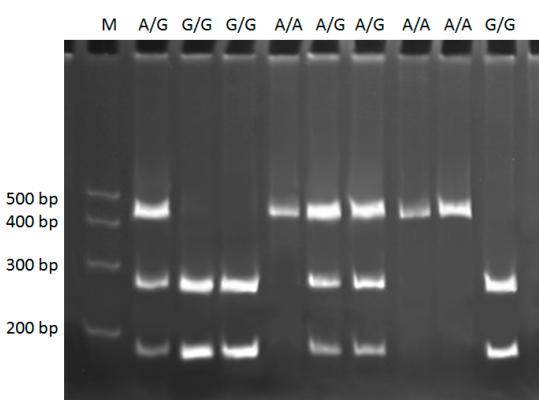
**Figure S3.** Results of the restriction fragments length polymorphism analysis of the c.-1370T>A polymorphism (rs1054875) of the *POLG* gene on an 8% polyacrylamide gel. Lane M shows a M100-500 DNA marker ladder, with length of the fragment indicated left to the picture. Genotypes are shown above the picture.



**Figure S4.** Results of the restriction fragments length polymorphism analysis of the c.580C>T polymorphism (rs1799782) of the *XRCC1* gene on an 8% polyacrylamide gel. Lane M shows a GeneRuler™ 100 bp marker ladder, with length of the fragment indicated left to the picture. Genotypes are shown above the picture.



**Figure S5.** Results of the restriction fragments length polymorphism analysis of the c.1196A>G polymorphism (rs25487) of the *XRCC1* gene on an 8% polyacrylamide gel. Lane M shows a M100-500 DNA marker ladder, with length of the fragment indicated left to the picture. Genotypes are shown above the picture.



**Table S1.** Distribution of combined genotypes of the g.46438521G>C—*NEIL1* and c.2285T>C—*PARP-1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
C/C-A/A	64	0.18	48	0.17	0.92 (0.61–1.37)	0.686	<b>0.48 (0.25–0.89)</b>	<b>0.019</b>
C/C-A/G	34	0.10	29	0.10	1.67 (0.63–1.80)	0.808	1.19 (0.57–2.50)	0.643
C/C-G/G	0	0.00	0	0.00	—	—	—	—
C/G-A/A	167	0.47	132	0.46	0.97 (0.71–1.32)	0.835	1.35 (0.86–2.12)	0.193
C/G-A/G	73	0.21	56	0.20	0.94 (0.63–1.39)	0.764	0.95 (0.54–1.65)	0.850
C/G-G/G	0	0.00	0	0.00	—	—	—	—
G/G-A/A	8	0.02	11	0.04	1.74 (0.69–4.38)	0.241	1.57 (0.37–6.64)	0.541
G/G-A/G	7	0.02	8	0.03	1.43 (0.51–4.00)	0.492	1.24 (0.26–5.88)	0.786
G/G-G/G	0	0.00	0	0.00	—	—	—	—

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S2.** Distribution of combined genotypes of the g.46438521G>C—*NEIL1* and c.-1370T>A—*POLG* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
C/C-A/A	14	0.04	17	0.06	1.52 (0.75–3.18)	0.242	1.56 (0.52–4.69)	0.424
C/C-A/T	30	0.08	42	0.15	<b>1.89 (1.14–3.07)</b>	<b>0.014</b>	<b>3.73 (1.76–7.87)</b>	<b>&lt;0.001</b>
C/C-T/T	2	0.01	3	0.01	1.87 (0.31–11.29)	0.493	0.29 (0.03–2.55)	0.267
C/G-A/A	57	0.16	40	0.14	0.85 (0.54–1.32)	0.472	<b>0.45 (0.24–0.84)</b>	<b>0.012</b>
C/G-A/T	140	0.40	91	0.32	0.72 (0.51–0.99)	0.047	0.66 (0.41–1.05)	0.083
C/G-T/T	6	0.02	8	0.03	1.68 (0.57–4.89)	0.344	2.48 (0.45–13.58)	0.295
G/G-A/A	27	0.08	20	0.07	0.91 (0.50–1.67)	0.771	1.04 (0.42–2.58)	0.933
G/G-A/T	70	0.20	55	0.19	0.97 (0.65–1.44)	0.884	1.23 (0.70–2.16)	0.472

**Table S2.** Cont.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
G/G-T/T	7	0.02	8	0.03	1.43 (0.51–4.00)	0.492	1.83 (0.36–9.16)	0.463

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S3.** Distribution of combined genotypes of the g.46438521G>C—*NEIL1* and c.580C>T—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
C/C-C/C	82	0.23	68	0.24	1.04 (0.72–1.50)	0.833	0.71 (0.41–1.22)	0.213
C/C-C/T	16	0.05	9	0.03	0.69 (0.30–1.58)	0.381	0.52 (0.16–1.74)	0.290
C/C-T/T	0	0.00	0	0.00	—	—	—	—
C/G-C/C	210	0.59	175	0.62	1.09 (0.79–1.50)	0.585	1.52 (0.95–2.44)	0.080
C/G-C/T	30	0.08	13	0.05	0.52 (0.26–1.01)	0.053	0.58 (0.23–1.49)	0.262
C/G-T/T	0	0.00	0	0.00	—	—	—	—
G/G-C/C	13	0.04	19	0.07	1.87 (0.91–3.87)	0.089	0.36 (0.23–0.58)	0.253
G/G-C/T	2	0.01	0	0.00	—	—	—	—
G/G-T/T	0	0.00	0	0.00	—	—	—	—

<sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S4.** Distribution of combined genotypes of the g.46438521G>C—*NEIL1* and c.1196A>G—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
C/C-A/A	24	0.07	19	0.07	0.94 (0.49–1.80)	0.846	1.56 (0.59–4.10)	0.371
C/C-A/G	59	0.17	54	0.19	0.65 (0.41–1.05)	0.081	<b>0.92 (0.91–0.94)</b>	<b>0.029</b>
C/C-G/G	15	0.04	4	0.01	0.74 (0.31–1.78)	0.509	0.57 (0.19–1.70)	0.318
C/G-A/A	48	0.14	40	0.14	1.79 (1.17–2.75)	0.007	2.17 (1.52–4.09)	<b>0.017</b>

**Table S4.** Cont.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
C/G–A/G	146	0.41	136	0.48	1.08 (0.78–1.50)	0.652	1.29 (0.80–2.08)	0.297
C/G–G/G	46	0.13	12	0.04	0.74 (0.44–1.24)	0.256	<b>0.42 (0.20–0.84)</b>	<b>0.015</b>
G/G–A/A	0	0.00	4	0.01	—	—	—	—
G/G–A/G	13	0.04	13	0.05	0.64 (0.24–1.72)	0.378	1.39 (0.39–4.95)	0.615
G/G–G/G	2	0.01	2	0.01	—	—	—	—

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S5.** Distribution of combined genotypes of the c.2285T>C—*PARP-1* and c.-1370T>A—*POLG* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
A/A–A/A	29	0.08	40	0.14	1.83 (1.10–3.04)	<b>0.019</b>	2.73 (1.29–5.78)	<b>0.009</b>
A/A–A/T	17	0.05	22	0.08	1.66 (0.86–3.19)	0.128	2.09 (0.79–5.52)	0.135
A/A–T/T	0	0.00	0	0.00	—	—	—	—
A/G–A/A	143	0.41	92	0.32	0.70 (0.51–0.98)	<b>0.035</b>	0.47 (0.29–0.76)	<b>0.002</b>
A/G–A/T	60	0.17	47	0.17	0.97 (0.64–1.47)	0.881	0.92 (0.91–0.94)	0.797
A/G–T/T	0	0.00	0	0.00	—	—	—	—
G/G–A/A	67	0.19	59	0.21	1.12 (0.76–1.65)	0.572	0.36 (0.22–0.57)	0.150
G/G–A/T	37	0.10	24	0.08	0.79 (0.46–1.35)	0.387	0.81 (0.37–1.75)	0.590
G/G–T/T	0	0.00	0	0.00	—	—	—	—

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S6.** Distribution of combined genotypes of the c.2285T>C—*PARP-1* and c.580C>T—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
A/A-C/C	204	0.58	175	0.62	1.17 (0.85–1.61)	0.328	1.16 (0.73–1.83)	0.524
A/A-C/T	35	0.10	16	0.06	0.54 (0.29–1.01)	0.051	0.49 (0.20–1.16)	0.106
A/A-T/T	0	0.00	0	0.00	—	—	—	—
A/G-C/C	101	0.29	87	0.31	1.10 (0.78–1.55)	0.578	1.15 (0.70–1.88)	0.576
A/G-C/T	13	0.04	6	0.02	0.56 (0.21–1.50)	0.253	0.52 (0.13–2.11)	0.362
A/G-T/T	0	0.00	0	0.00	—	—	—	—
G/G-C/C	0	0.00	0	0.00	—	—	—	—
G/G-C/T	0	0.00	0	0.00	—	—	—	—
G/G-T/T	0	0.00	0	0.00	—	—	—	—

<sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S7.** Distribution of combined genotypes of the c.2285T>C—*PARP-1* and c.1196A>G—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
A/A-A/A	52	0.15	45	0.16	1.37 (0.89–2.12)	0.147	<b>2.62 (1.36–5.07)</b>	<b>0.004</b>
A/A-A/G	144	0.41	136	0.48	0.92 (0.66–1.28)	0.623	1.10 (0.68–1.77)	0.699
A/A-G/G	43	0.12	10	0.04	0.66 (0.38–1.14)	0.140	<b>0.38 (0.19–0.78)</b>	<b>0.008</b>
A/G-A/A	20	0.06	18	0.06	1.93 (1.05–3.55)	0.033	1.46 (0.60–3.56)	0.407
A/G-A/G	74	0.21	67	0.24	0.85 (0.56–1.28)	0.438	0.77 (0.43–1.40)	0.398
A/G-G/G	20	0.06	8	0.03	0.84 (0.40–1.75)	0.641	0.54 (0.19–1.56)	0.259
G/G-A/A	0	0.00	0	0.00	—	—	—	—
G/G-A/G	0	0.00	0	0.00	—	—	—	—
G/G-G/G	0	0.00	0	0.00	—	—	—	—

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S8.** Distribution of combined genotypes of the c.-1370T>A—*POLG* and c.580C>T—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
A/A-C/C	41	0.12	60	0.21	<b>2.04</b> (1.32–3.14)	<b>0.001</b>	<b>3.05</b> (1.59–5.86)	<0.001
A/A-C/T	5	0.01	2	0.01	0.49 (0.09–2.56)	0.401	0.54 (0.06–4.58)	0.574
A/A-T/T	0	0.00	0	0.00	—	—	—	—
A/T-C/C	175	0.50	127	0.45	0.82 (0.60–1.13)	0.223	0.63 (0.40–0.99)	0.046
A/T-C/T	28	0.08	12	0.04	0.51 (0.26–1.03)	0.059	<b>0.30</b> (0.12–0.79)	<b>0.014</b>
A/T-T/T	0	0.00	0	0.00	—	—	—	—
T/T-C/C	89	0.25	75	0.26	1.06 (0.74–1.52)	0.732	1.23 (0.73–2.07)	0.438
T/T-C/T	15	0.04	8	0.03	0.65 (0.27–1.56)	0.339	1.39 (0.37–5.04)	0.647
T/T-T/T	0	0.00	0	0.00	—	—	—	—

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S9.** Distribution of combined genotypes of the c.-1370T>A—*POLG* and c.1196A>G—*XRCC1* polymorphisms and odds ratio (OR) with 95% confidence interval (95% CI) in patients with keratoconus (KC) and controls.

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
	Number	Frequency	Number	Frequency				
A/A-A/A	6	0.02	13	0.05	<b>2.77</b> (1.04–7.39)	<b>0.041</b>	2.73 (0.74–10.03)	0.131
A/A-A/G	31	0.09	46	0.16	<b>2.01</b> (1.24–3.26)	<b>0.005</b>	<b>3.01</b> (1.44–6.28)	<b>0.003</b>
A/A-G/G	9	0.03	3	0.01	0.41 (0.11–1.52)	0.182	0.66 (0.11–3.90)	0.652
A/T-A/A	41	0.12	33	0.12	1.00 (0.61–1.63)	0.998	1.34 (0.67–2.67)	0.414
A/T-A/G	118	0.33	100	0.35	1.08 (0.78–1.50)	0.637	0.92 (0.91–0.94)	0.926
A/T-G/G	44	0.12	6	0.02	<b>0.15</b> (0.06–0.36)	< <b>0.001</b>	<b>0.04</b> (0.01–0.14)	<0.001
T/T-A/A	25	0.07	17	0.06	0.83 (0.44–1.58)	0.580	1.24 (0.50–3.08)	0.636
T/T-A/G	69	0.20	57	0.20	1.03 (0.70–1.53)	0.869	0.92 (0.91–0.94)	0.404

**Table S9. Cont.**

Combined Genotypes	Controls ( <i>n</i> = 353)		KC ( <i>n</i> = 284)		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
T/T-G/G	10	0.03	9	0.03	1.12 (0.45–2.80)	0.804	0.87 (0.23–3.32)	0.846

*p* values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.

**Table S10.** Distribution of genotypes of the 46438521G>C—*NEIL1*, c.2285T>C—*PARP-1*, c.-1370T>A—*POLG*, c.580C>T—*XRCC1* and c.1196A>G—*XRCC1* polymorphisms stratified by sex in patients with keratoconus (KC) and controls.

Polymorphism	Controls		KC		Crude OR (95% CI)	<i>p</i>	Adjusted OR <sup>a</sup> (95% CI)	<i>p</i>
Genotype/Alele	Number	Frequency	Number	Frequency				
<b>g.46438521G&gt;C</b>								
<b><i>NEIL1</i></b>								
women								
C/C	60	0.27	22	0.26	0.94 (0.53–1.66)	0.830	0.76 (0.36–0.49)	0.488
C/G	153	0.68	55	0.64	0.82 (0.49–1.39)	0.466	1.11 (0.55–2.27)	0.769
G/G	11	0.05	9	0.10	2.26 (0.90–5.67)	0.081	1.65 (0.42–6.55)	0.476
C	273	0.61	99	0.58	0.79 (0.49–1.26)	0.322	0.75 (0.40–1.41)	0.374
G	175	0.39	73	0.42	1.26 (0.79–2.02)	0.322	1.33 (0.71–2.47)	0.374
men								
C/C	38	0.29	55	0.28	0.92 (0.56–1.50)	0.742	0.53 (0.26–1.09)	0.089
C/G	87	0.67	133	0.67	0.99 (0.61–1.58)	0.959	1.80 (0.90–3.58)	0.095
G/G	4	0.03	10	0.05	1.66 (0.51–5.42)	0.399	0.99 (0.19–5.05)	0.988
C	163	0.63	243	0.61	0.87 (0.57–1.34)	0.536	0.61 (0.32–1.16)	0.131
G	95	0.37	153	0.39	1.14 (0.75–1.75)	0.536	1.63 (0.86–3.08)	0.131
<b>c.2285T&gt;C</b>								
<b><i>PARP-1</i></b>								
women								
A/A	157	0.70	53	0.62	0.68 (0.41–1.15)	0.155	0.67 (0.34–1.34)	0.263
A/G	67	0.30	33	0.38	1.46 (0.87–2.45)	0.155	1.48 (0.74–2.96)	0.263
G/G	0	0.00	0	0.00	—	—	—	—

**Table S10.** *Cont.*

Polymorphism	Controls		KC		Crude OR (95% CI)	p	Adjusted OR <sup>a</sup> (95% CI)	p
Genotype/Allele	Number	Frequency	Number	Frequency				
<b>c.2285T&gt;C</b>								
<i>PARP-1</i>								
women								
A	381	0.85	139	0.81	0.68 (0.41–1.15)	0.155	0.67 (0.34–1.34)	0.263
G	67	0.15	33	0.19	1.46 (0.87–2.45)	0.155	1.48 (0.74–2.96)	0.263
men								
A/A	82	0.64	138	0.70	1.28 (0.87–1.87)	0.289	1.01 (0.52–1.96)	0.973
A/G	47	0.36	60	0.30	0.77 (0.48–1.24)	0.289	0.99 (0.51–1.92)	0.973
G/G	0	0.00	0	0.00	–	–	–	–
A	211	0.82	336	0.85	1.29 (0.81–2.06)	0.289	1.01 (0.52–1.96)	0.973
G	47	0.18	60	0.15	0.77 (0.48–1.24)	0.289	0.99 (0.51–1.92)	0.973
<b>c.-1370T&gt;A</b>								
<i>POLG</i>								
women								
A/A	30	0.13	21	0.24	2.09 (1.11–3.09)	0.021	3.22 (1.35–7.68)	0.008
A/T	125	0.56	37	0.43	0.60 (0.36–0.99)	0.045	0.35 (0.17–0.70)	0.003
T/T	69	0.31	28	0.33	1.08 (0.64–1.85)	0.766	1.45 (0.71–2.95)	0.298
A	185	0.41	79	0.46	1.22 (0.85–1.77)	0.280	1.21 (0.75–1.96)	0.438
T	263	0.59	93	0.54	0.82 (0.56–1.18)	0.280	0.83 (0.51–1.34)	0.438
men								
A/A	16	0.12	41	0.21	1.84 (0.99–3.45)	0.055	2.20 (0.90–5.38)	0.083
A/T	78	0.60	102	0.52	0.69 (0.44–1.09)	0.112	0.65 (0.34–1.22)	0.177
T/T	35	0.27	55	0.28	1.03 (0.63–1.70)	0.898	1.02 (0.50–2.07)	0.961
A	110	0.43	184	0.46	1.19 (0.85–1.67)	0.308	1.27 (0.78–2.07)	0.327
T	148	0.57	212	0.54	0.84 (0.60–1.17)	0.308	0.78 (0.48–1.27)	0.327

**Table S10.** *Cont.*

Polymorphism	Controls		KC		Crude OR (95% CI)	p	Adjusted OR <sup>a</sup> (95% CI)	p
Genotype/Allele	Number	Frequency	Number	Frequency				
<b>c.580C&gt;T</b>								
<i>XRCC1</i>								
women								
C/C	198	0.88	78	0.91	1.28 (0.56–2.95)	0.562	1.23 (0.39–3.91)	0.723
C/T	26	0.12	8	0.09	0.78 (0.34–1.80)	0.562	0.81 (0.26–2.57)	0.723
T/T	0	0.00	0	0.00	–	–	–	–
C	418	0.93	164	0.95	1.51 (0.66–3.43)	0.328	2.92 (0.93–9.18)	0.066
T	30	0.07	8	0.05	0.66 (0.29–1.51)	0.328	0.34 (0.11–1.07)	0.066
men								
C/C	107	0.83	184	0.93	<b>2.70</b> <b>(1.33–5.50)</b>	<b>0.006</b>	<b>3.45</b> <b>(1.25–9.49)</b>	<b>0.017</b>
C/T	22	0.17	14	0.07	<b>0.37</b> <b>(0.18–0.75)</b>	<b>0.006</b>	<b>0.29</b> <b>(0.10–0.80)</b>	<b>0.017</b>
T/T	0	0.00	0	0.00	–	–	–	–
C	235	0.91	382	0.96	<b>2.85</b> <b>(1.41–5.78)</b>	<b>0.004</b>	<b>3.85</b> <b>(1.42–10.45)</b>	<b>0.008</b>
T	23	0.09	14	0.04	<b>0.35</b> <b>(0.17–0.71)</b>	<b>0.004</b>	<b>0.26</b> <b>(0.09–0.70)</b>	<b>0.008</b>
<b>c.1196A&gt;G</b>								
<i>XRCC1</i>								
women								
A/A	50	0.22	20	0.23	1.05 (0.58–1.90)	0.860	1.14 (0.52–2.49)	0.747
A/G	137	0.61	62	0.72	1.64 (0.95–2.82)	0.074	<b>2.12</b> <b>(1.03–4.36)</b>	<b>0.042</b>
G/G	37	0.17	4	0.05	<b>0.25</b> <b>(0.08–0.71)</b>	<b>0.010</b>	<b>0.13</b> <b>(0.03–0.45)</b>	<b>0.002</b>
A	237	0.53	102	0.59	1.45 (0.94–2.22)	0.089	<b>1.87</b> <b>(1.05–3.35)</b>	<b>0.035</b>
G	211	0.47	70	0.41	0.69 (0.45–1.06)	0.089	<b>0.53</b> <b>(0.30–0.96)</b>	<b>0.035</b>
men								
A/A	22	0.17	43	0.22	1.35 (0.76–2.38)	0.303	<b>2.44</b> <b>(1.08–5.37)</b>	<b>0.031</b>
A/G	81	0.63	141	0.71	1.47 (0.91–2.35)	0.112	1.56 (0.82–2.97)	0.177
G/G	26	0.20	14	0.07	<b>0.30</b> <b>(0.15–0.60)</b>	<b>&lt;0.001</b>	<b>0.13</b> <b>(0.05–0.33)</b>	<b>&lt;0.001</b>

**Table S10.** *Cont.*

Polymorphism	Controls		KC		Crude OR (95% CI)	p	Adjusted OR <sup>a</sup> (95% CI)	p
Genotype/Allele	Number	Frequency	Number	Frequency				
<b>c.1196A&gt;G</b>								
<i>XRCCI</i>								
men								
A	125	0.48	227	0.57	<b>1.78 (1.18–2.69)</b>	<b>0.006</b>	<b>3.23 (0.82–5.72)</b>	<0.001
G	133	0.52	169	0.43	<b>0.31 (0.17–0.55)</b>	<0.001	<b>0.31 (0.17–0.55)</b>	<0.001

p values <0.05 along with corresponding ORs are in bold; <sup>a</sup> OR adjusted for sex, age, co-occurrence of visual impairment, allergies, and family history for KC.