

Familial Risks of Glaucoma in the Population of Sweden

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BACKGROUND: Glaucoma has a familial component but detailed data on the modification of familial risks are lacking. The aim of the study was to determine detailed familial risks for medically diagnosed glaucoma based on nationwide hospital and population records.

MATERIALS AND METHODS: Subjects were obtained from the multigeneration register, contains the Swedish population in families, and glaucoma patients were identified from the hospital discharge register (1987-2012) and the outpatient register (2001-2012) . Standardized incidence ratios (SIRs) were calculated as the ratio of observed to expected number of cases.

RESULTS: Familial risks were increased in both male and female individuals. Concordant familial risks were generally higher than discordant risks. For example, familial concordant risks were SIR=3.25 (95% confidence interval, 3.16-3.35) for primary open-angle glaucoma, 9.93 (95% confidence interval, 7.30-13.22) for primary angle-closure glaucoma. Very high familial risks were observed if ≥2 relatives were affected, for example

CONCLUSIONS AND RELEVANCE: Family history of glaucoma is a strong predictor for glaucoma, and is a potential useful tool in clinical risk assessment. Our data emphasize the contribution of familial factors to the glaucoma.

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<http://www.ncbi.nlm.nih.gov/pubmed/29952824>