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Professional paper

Pseudoexfoliative Syndrome and Pseudoexfoliative Glaucoma in Primorsko-Goranska County

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A B S T R A C T

The aim of this study is to evaluate pseudoexfoliative glaucoma (PEX) in Primorsko-Goranska County, Croatia, and its characteristics comparing to primary open angle glaucoma (POAG). In the study a hundred patients with open angle glaucoma were examined, twenty six of them had a pseudoexfoliative glaucoma diagnosed. We were following intraocular pressure (IOP) values, visual acuities, visual fields and optical nerve head changes retrospectively. Comparing to primary open angle glaucoma pseudoexfoliative glaucoma in Primorsko-Goranska County has less good prognosis because the IOP is usually higher and more difficult to control, we found progressive loss of retinal ganglion cells and visual field loss develop more rapidly. Because of that pseudoexfoliative glaucoma requires special treatment and following.

Key words: *primary open angle glaucoma, pseudoexfoliative glaucoma, intraocular pressure, visual field, optic nerve head, visual acuity*

Introduction

Primary open angle glaucoma is a bilateral, but not always symmetrical disease characterized by adult onset, intraocular pressure higher than 21 mmHg, open angle of normal appearance, glaucomatous optic nerve head damage and visual field loss. Approximately 16% of all patients with otherwise characteristics will have intraocular pressure (IOP) constantly below 22 mmHg. Also, some individuals with IOP higher than 22 mmHg do not have primary open angle glaucoma (POAG)[1,2].

Pseudoexfoliation glaucoma is mostly open angle glaucoma which differs from POAG, characterized by trabecular blockage with pseudoexfoliative glaucoma (PEX) and/or pigment released by the iris. PEX material is grey-white material produced by abnormal basement membranes and deposited on the anterior segment structures. Cornea may show PEX on the endothelium as well as pigment deposition, iris has PEX on the pupil margin and »moth-eaten« sphincter atrophy. Lens shows central disc and peripheral band of PEX with clear one between. Gonioscopy shows trabecular pigmentation and PEX deposits and Sampaolesis line anterior to Schwalbe line. In rare cases the angle is narrow. Transilumination test of iris is positive[3,4].

The pattern of inheritance for pseudoexfoliative glaucoma is genetic inclination of X-linked inheritance with ecological influences: insolation, strong winds and salt from the sea[5].

Patients and Methods

In our study we examined a hundred patients with open angle glaucoma. All of them were patients followed from 10 to 5 years ago in Glaucoma department, Department of Ophthalmology, Rijeka University Hospital, 62 males and 38 females. Twenty-six of whole group had pseudoexfoliative glaucoma. Some data was extracted from the patient files as IOP values at their first visit, before starting with antiglaucomatous therapy, than the number of medications which they needed to compensate IOP after 5 years from the start and the progression in visual field damage after 5 years from the diagnosis and also optic nerve head after 5 years and visual acuity at the same time. This data were compared in POAG group and glaucoma PEX group.

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Results and Discussion

In Primorsko-Goranska County in the group of open angle glaucoma frequency of pseudoexfoliative glaucoma is 26%. At their first visit patients with POAG had average IOP 24 mmHg, and patients with PEX glaucoma had average IOP 28 mmHg, significantly higher than first group (t-test, $p<0.0001$). After five years group of patients with PEX glaucoma needed three or more topical medications average, comparing with POAG glaucoma group in which patients were compensated with one or two local medications. After five years in visual field 24% of patients in POAG group had visual field changes, comparing with 43% with typical glaucomatous visual field changes in PEX glaucoma group. The optic nerve head also showed cup/disc ratio more than 5 in 41% in glaucoma PEX, comparing with 28 in POAG group. Visual acuities were about the same after 5 years according to glaucoma changes.

Conclusion

In this study we concluded that glaucoma PEX is a more progressive than POAG, more difficult to compensate and because of its characteristics requires special treatment and following. It is about 26% of open angle glaucoma in our Primorsko-Goranska County.

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PSEUDOEKSFOLIJATIVNI SINDROM I PSEUDOEKSFOLIJATIVNI GLAUKOM U PRIMORSKO-GORANSKOJ ŽUPANIJI

SAŽETAK

Cilj ove studije je proučiti pseudoeksfolijativni glaukom u Primorsko-Goranskoj Županiji i njegove karakteristike u usporedbi s glaukomom otvorenog kuta. U ovoj studiji pregledano je 100 pacijenata s glaukomom otvorenog kuta, kod 26 od njih postavljena je dijagnoza pseudoeksfolijativnog glaukoma. Pratili smo vrijednosti intraokularnog tlaka, vidnih oštrina, nalaze vidnih polja i promjene vidnog živca retrospektivno. U usporedbi s primarnim glaukomom otvorenog kuta pseudoeksfolijativn glaukom u Primorsko-Goranskoj Županiji ima lošiju prognozu zbog viših intraokularnih tlakova, koje je teže kontrolirati, progresivnog gubitka retinalnih ganglijskih stanica i rapidnijeg propadanja vidnog polja. Radi toga pseudoeksfolijativni glaukom zahtjeva posebno praćenje i liječenje.