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Case Report / Приказ случаја

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Coincidence of retinopathia pigmentosa and pseudoexfoliative glaucoma

Коинциденција пигментне ретинопатије и капсуларног глаукома

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SUMMARY

Introduction This is an observational case report presenting retinopathia pigmentosa associated with pseudoexfoliative glaucoma.

Case outline A 69-years-old man presented with retinopathia pigmentosa. On examination, pseudoexfoliative material was detected on anterior segment structures, and intraocular pressure was 26 mmHg in the right and 24 mmHg in the left eye. Patient was commenced on topical antiglaucomatous therapy (timolol+dorsolamide twice daily, latanoprost once in the evening) to both eyes.

Conclusion To the best of our knowledge, this is the first reported case of retinopathia pigmentosa associated with pseudoexfoliative glaucoma. Although rare, retinopathia pigmentosa and glaucoma can occur in the same eye.

Keywords: glaucoma; pseudoexfoliations; retinopathia pigmentosa; intraocular; pressure

САЖЕТАК

Увод Приказујемо случај ретинопатије пигментозе удруженог са капсуларним глаукомом.

Приказ болесника При прегледу мушкараца старости 69 година са пигментном ретинопатијом откривен је псеудоексфолијативни материјал на структурама предњег сегмента ока, а интраокуларни притисак је био 26 mmHg на десном и 24 mmHg на левом оку. Пацијенту је прописана одговарајућа локална антиглаукоматозна терапија (тимолол+дорзоламид капи два пута дневно, латанопрост капи једном увече) у оба ока.

Закључак Према нашим сазнањима, ово је први случај пигментне ретинопатије удружен са капсуларним глаукомом. Иако ретко, глауком и пигментна ретинопатија могу бити присутни у истом оку.

Кључне речи: глауком; псеудоексфолијације; ретинопатија пигментоза; интраокуларни притисак

INTRODUCTION

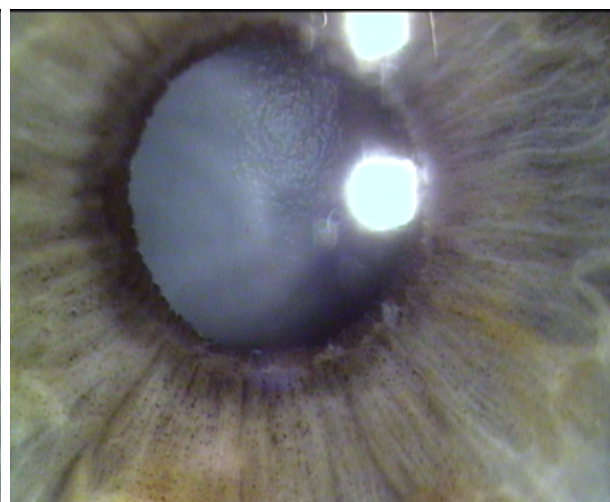
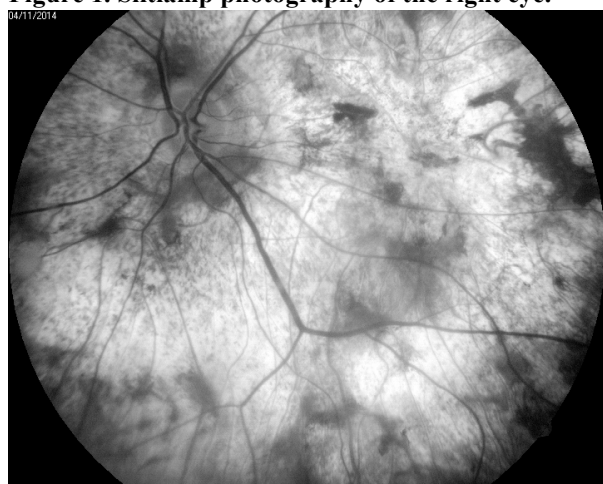
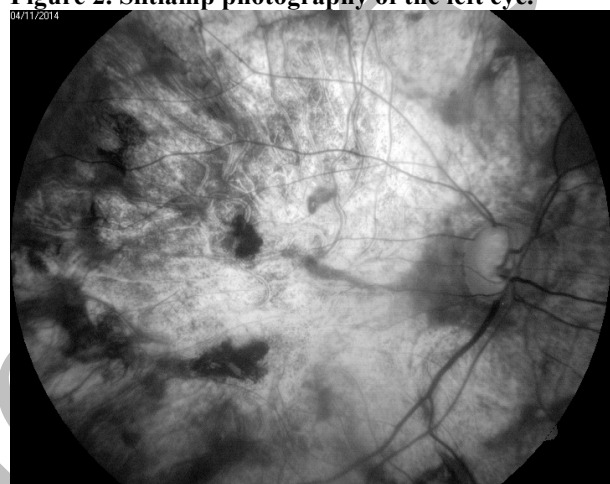
Retinopathia pigmentosa (RP) is a group of inherited disorders in which abnormalities of the photoreceptors (rods and cones) or the retinal pigment epithelium lead to progressive visual loss. RP can be associated with a wide variety of ocular and systemic disorders : Weill-Marchesani syndrome, ectopia lentis, Fuchs' heterochromic cyclitis [1, 2, 3, 4]. Rarely, RP can be associated with various forms of glaucoma [5]. To the best of our knowledge association of RP and pseudoexfoliative glaucoma (PXFG) has not yet been reported.

CASE REPORT

A 69-years-old man was referred to our glaucoma clinic for a consultation. He had a history of RP since his young age (teenage years). On examination, best-corrected visual acuity was 0.50/60 in the right eye, and hand movements in the left. Goldman applanation tonometry revealed intraocular pressure (IOP) of 24 mmHg in the right and 26 mmHg in the left eye. Central corneal thickness (Palm Scan AP 2000, Ophthalmic ultrasound, 2007, Micro Medical Devices Inc. Calabasas, CA, 91302 USA) was 556 μ m in the right eye and 559 μ m in the left. Pseudoexfoliative material was present on pupillary margin and anterior capsule of lens, bilaterally (Figure 1 and 2).

Gonioscopy demonstrated wide-open angles bilaterally, and heavily pigmented trabecular meshwork. Fundoscopy showed optic disc asymmetry with cup:disc ratios being 0.4 RE and 0.8 LE (Figure 3 and 4).

Standard automated perimetry was not possible due to the poor visual acuity.

**Figure 1. Slitlamp photography of the right eye.****Figure 2. Slitlamp photography of the left eye.****Figure 3. Fundus photography of the right eye.****Figure 4. Fundus photography of the left eye.**

DISCUSSION

A diagnosis of pseudoexfoliative glaucoma (PXFG) was made, and patient was commenced on topical antiglaucomatous therapy (timolol+dorsolamide twice daily, latanoprost once in the evening) to both eyes. The rationale for such an aggressive antiglaucoma therapy was poor visual acuity in both eyes. After 3 days IOPs had decreased to 16 mmHg (right eye) and 18 mmHg (left eye). Since satisfactory IOP reduction was accomplished with medication, no further therapeutical steps were taken (laser treatment or surgery). RP is an inherited bilateral condition. Most cases are familial, inherited in a variety of ways, including dominant, recessive, and sex-linked recessive. Some cases are sporadic and lack a family history of the disease, like the case we are presenting. According to available literature, the prevalence of primary open angle glaucoma in patients with RP ranges from 2-12% [6]. Literature review shows association of RP with chronic angle-closure glaucoma, acute angle-closure glaucoma and pigmentary glaucoma [7], but this is the first time that RP accompanied by PXFG is reported. In cases of RP associated with advanced glaucoma, we must emphasize the need for making an early glaucoma diagnose, and almost an aggressive glaucoma treatment in spite of

poor visual acuity, as further deterioration of the visual field can significantly affect the quality of life of our patients.

To the best of our knowledge, this is the first reported case of retinopathia pigmentosa associated with pseudoexfoliative glaucoma. Although rare, retinopathia pigmentosa and glaucoma can occur in the same eye.

REFERENCES

1. Jethani J, Mishra A, Shetty S, Vijayalakshmi P. Weill-Marchesani syndrome associated with retinitis pigmentosa. *Indian J Ophthalmol*. 2007; 55: 142–3.
2. Eid TM. Retinitis pigmentosa associated with ectopia lentis and acute angle-closure glaucoma. *Can J Ophthalmol*. 2008; 43:726–7.
3. Sira M, Ho T. Acute angle closure glaucoma secondary to a luxated lens associated with retinitis pigmentosa. *Eye (Lond)*. 2005; 19: 472–3.
4. Vuorre I, Saari M, Tiilikainen A, Rasanen O. Fuchs' heterochromic cyclitis associated with retinitis pigmentosa: a family study. *Can J Ophthalmol*. 1979; 14: 10–6.
5. Wang M, Lin HT, Bai YJ, Ge J, Zhuo YH. Clinical evidence in concurrence of retinitis pigmentosa and glaucoma. *Chin Med J (Engl)*. 2011; 124: 1270–4.
6. Badeeb O, Trope G, Musarella M. Primary angle closure glaucoma and retinitis pigmentosa. *Acta Ophthalmol (Copenh)*. 1993; 71: 727–32.
7. Peng DW. Retinitis pigmentosa associated with glaucoma. *Zhonghua Yan Ke Za Zhi*. 1991; 27: 262–4.