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Retinal detachment as a late complication of retinopathy of prematurity

Mónika Schvöller,

Valéria Gaál,

Judit Gaál,

Zsuzsanna Szijártó

Faculty of Medicine,
University of Pécs,
Pécs, Hungary

Background: Retinal detachment (RD) is a less frequent late complication of retinopathy of praematurity (ROP) than myopia, amblyopia, anisometropia, strabismus and glaucoma.

Materials and methods: A fourteen-year-old formerly preterm patient was operated on the left eye with rhegmatogenous retinal detachment as a late complication of ROP. A preventive laser photocoagulation was applied in the right eye because of peripheral tear.

Results: RD was successfully treated with pars plana vitrectomy. After the operation the visual acuity improved from 5/8 to 5/6. During the 15-month follow-up period the retina remained attached.

Conclusion: ROP is a life-long disease with possible late complications. Retinal detachment could be prevented during long-term follow-up.

Key words: retinopathy of prematurity, retinal detachment, pars plana vitrectomy

Retinal detachment (RD) is a less frequent late complication of retinopathy of praematurity (ROP) than myopia, amblyopia, anisometropia, strabismus and glaucoma (1).

MATERIALS AND METHODS

The patient (born in 1990, birth weight 1480 g, gestational age 32 weeks) was treated by transconjunctival cryopexy because of stage III ROP on both eyes in the eighth postnatal week and then by transscleral cryopexy because of further progression.

Between 1990 and March 2004, the child was controlled regularly, he didn't have any complaints, and no remarkable retinal lesion was detected.

The visual acuity on the right eye was 5/8, with –6.5 D sph combined –1.0 cyl axis 180°, and on the left eye 5/6 with –6.5 D sph combined –2,0 cyl axis 120°.

The patient presented visual deterioration in March 2004, as a curtain in front of his left eye.

Visual acuity on the right eye with –8,0 D sph was 5/6 and on the left with –6/0 D sph 5/8.

On the right eye, the Goldmann three-mirror-lens examination showed a big tear centrally to the peripheral scar, and the retina remained totally attached.

Correspondence to: Dr Schvöller Mónika, Ifjúság str. 13, 7624 Pécs, Hungary. E-mail: schvoller@yahoo.com

On the left eye, the Goldmann three-mirror-lens examination showed a rhegmatogen retinal detachment inferonasally with a big atrophic tear at VIII o'clock (Fig. 1).

The left eye underwent pars plana vitrectomy, endolaser, endolaser cerclage and sulfur-hexafluoride gas implantation. To the right eye, preventive laser photocoagulation was applied (Figs. 2, 3).

RESULTS

The left eye was successfully treated by pars plana vitrectomy, the retina completely attached.

During the 15-month follow-up period the retina remained attached in both eyes and visual acuity stabilized to 5/6.

DISCUSSION

Retinal detachment is a less frequent but more serious vision-threatening late complication of ROP than myopia, amblyopia, anisometropia, strabismus and glaucoma. Serious visual deterioration caused by retinal detachment could be prevented in most of the cases by an accurate and long-term follow-up (2). The patient must be well informed about the early signs of this potential complication (2, 3).

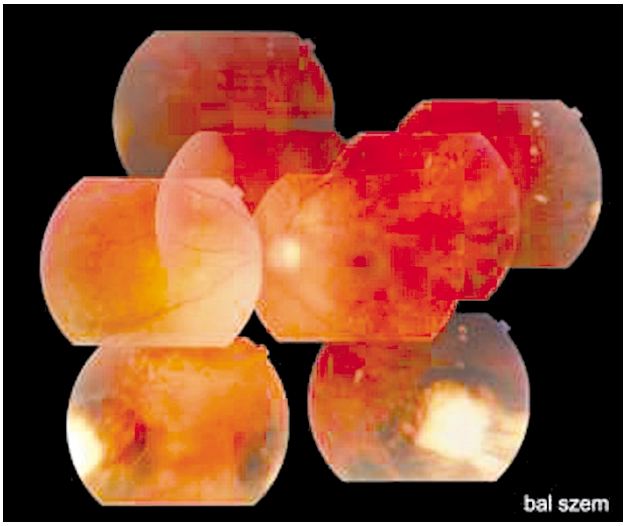

Fig. 1. The left eye before surgery

Fig. 3. The right eye after laser-photocoagulation

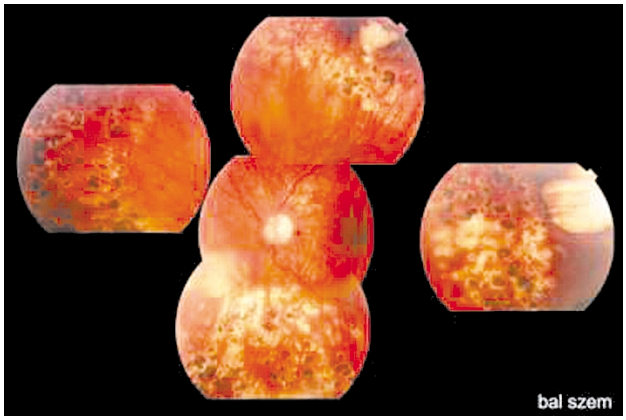

Fig. 2. The left eye after surgery

CONCLUSION

ROP is a life-long disease with possible late complications. Retinal detachment could be prevented during long-term follow-up.

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