THE PROBLEMS OF CATARACT MANAGEMENT IN CHILDREN

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Abstract: *The aim of our study is to reveal the problems involved by the uni- or bilateral cataract in children. We studied 12 cases of congenital and traumatic cataract, operated in the Ophthalmology Clinic of the city of Sibiu, in 2008. The children were below the age of 14. Children cataract is a special problem in ophthalmology surgery, concerning amblyopia, binocular vision and wound management.*

Keywords: *congenital cataract, extracapsular extraction through irrigation-aspiration*

Rezumat: *Scopul lucrării este de a evidenţia problemele ridicate de cataracta uni - sau bilaterală a copilului. Am luat în studiu un număr de 12 cazuri cu cataractă congenitală şi traumatică operaţi în anul 2008 în Secţia Clinica Oftalmologie a Spitalului Clinic Judeţean Sibiu cu vârsta sub 14 ani. Cataracta la copil este o problemă deosebită în chirurgia oftalmologică, vizând ambliopia, restaurarea vederii binoculare, rezolvarea plăgii în cataractele traumatice.*

Cuvinte cheie: *cataracta congenitală, extracţie extracapsulară prin irigaţie-aspiraţie*

INTRODUCTION

The terms *congenital cataract* and *infant cataract* are used to define the opacification of the lens in the first year of life. In the developed countries, the incidence of congenital cataract is 1:10000 newborn and represents 15% of the total cases of blindness in the newborn.

Etiology refers to chromosomal abnormalities, metabolic diseases (galactosemia), intrauterine infections.

The clinical forms are: central, subcapsular, cortical.

Children cataract is the 3rd cause of amblyopia after strabismus and anisometropia.(1)

In unilateral congenital cataract, the quality of vision on the operated eye is weaker than the healthy eye; the brain selects the better image and suppresses the low quality image, generating amblyopia (lazy eye) and, secondary, strabismus (wandering eye).(2)

In bilateral congenital cataract, after surgery, the quality of vision is approximately equal, low visual acuity could be obtained, but equal in both eyes.

The unilateral traumatic cataract raises the same problems, related to the unilateral cataract, but also problems related to the trauma of the cornea, posterior or anterior capsule, vitreous, intraocular foreign bodies etc.

PURPOSE OF THE STUDY

The aim of our study is to reveal the problems involved by uni- or bilateral cataract in children.

MATERIAL AND METHODS

We studied 12 cases of congenital and traumatic cataract, operated in the Ophthalmology Clinic of the city of Sibiu, in 2008.

The subjects were children under the age of 14. There were 8 congenital bilateral cataracts and 4 traumatic cataracts.

The method used was EEC with IOL-PC, under general anaesthesia. In most cases, we performed posterior capsulorhexis.

RESULTS AND DISCUSSIONS

Congenital cataract has to be treated as an emergency and removed before the age of 6 months, in order to get the best vision.

One of the problems that may occur concerning the cataract management in children is the correction of aphakia. The correction of aphakia can be accomplished with: eyeglasses, contact lens, intraocular lens (IOL).
Nowadays, the implant of IOL is preferred. The question is what dioptric power should have the implant. In all cases, we performed IOL implantation (Picture no. 1).

An important aspect in the surgery of children cataract is related to the management of an eventual pre-existing posterior capsule defect, which can generate serious intraoperatory complications. Ideal is to identify this problem preoperatorily.

Preoperatory signs: white dots on the posterior capsule and in the anterior vitreous (fish-tail sign), well-demarcated, thick defect margins.(3,4)

It is not always easy to detect these defects before surgery. The defect should be identified as soon as possible intraoperatorily, in order to avoid further complications.

In the case of an 8-month old patient with bilateral congenital cataract, intraoperatorily, we found a defect in

the posterior capsule in the right eye (RE). It was successfully solved and the implant was done in the capsular bag. (Pictures no. 2,3)

In traumatic cataracts, the corneal plague, the rupture of the capsules and the vitreous involve further problems during the operation.

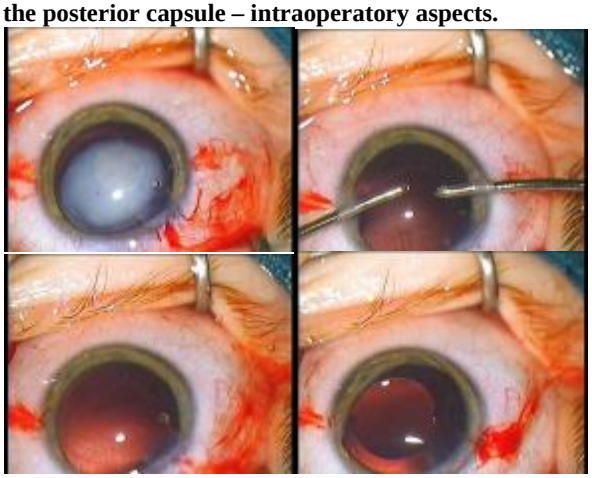
In the case of a young patient with traumatic cataract, we first solved the corneo-scleral wound and next, through irrigation-aspiration, we removed the opacified crystalline with PC IOL implant. (Picture no. 4)

The opacifiation of the posterior capsule occurs in 100% of the cases under the age of 4. We underline the importance of the posterior capsulorhexis in order to prevent the PCO.

The treatment of amblyopia consists in the occlusion of the healthy eye, depending on age.

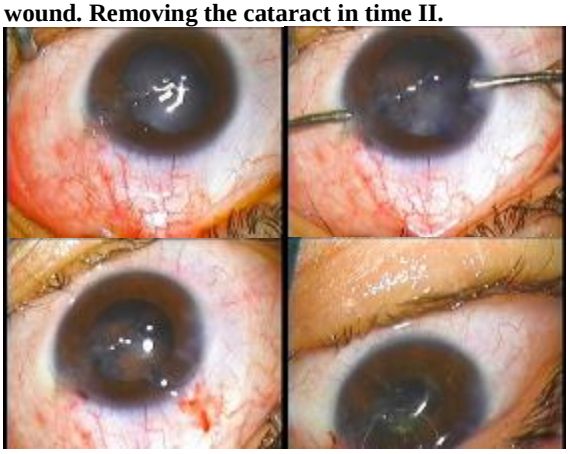
Picture no. 1. Congenital, bilateral cataract, operated using EEC irrigation-aspiration with PC IOL.

Picture no. 2. Patient DC, 8-month old. RE: defect of the posterior capsule – intraoperatory aspects.



Picture no. 3. Patient DC. Postoperatory aspect +/- correction.

Picture no. 4. Traumatic cataract, corneo-scleral wound. Removing the cataract in time II.



CONCLUSIONS

- The results were good, related to the morphological aspect, but the problem remains the functional recovery;
- In unilateral cataract, amblyopia occurs in all cases;
- The surgery has to be performed as soon as possible;
- The traumatic cataract involves further difficulties;
- The opacifiation of the posterior capsule occurs in 100% of the cases; that is why, posterior capsulorhexis is a necessity; We consider the technique for posterior capsulorhexis almost ideal.

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