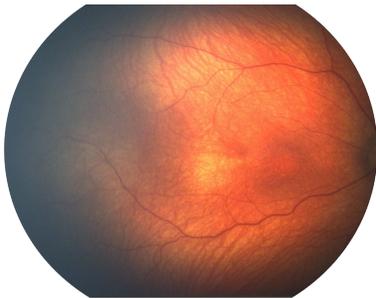


Information to parents - ROP

The development of blood vessels of the inner part of the eye, i.e. the retina, may be disturbed in prematurely-born children, resulting in so called ROP, i.e. retinopathy of prematurity. The eyes of these children are therefore examined regularly in the neonatal period.

Normal development of the eye

The retina, at the interior of the eye, contains light-sensitive cells receiving visual information, which is transferred to the brain where it is processed and interpreted. The development of the blood vessels of the retina starts in the middle of the pregnancy and continues until full term, i.e. after 40 weeks of gestation.



ROP

After preterm birth, the development of the retinal blood vessels may be disturbed. The earlier the child is born, the higher the risk of abnormal growth of the blood vessels, which may lead to development of ROP. The most important risk factors for the development of ROP are early preterm birth, excessive oxygen treatment of the child and poor growth during the first weeks of life.

ROP is divided into different stages and in severe cases it may lead to haemorrhages and scarring, which may result in traction of the retina. In the most advanced type of ROP, the retina may detach, resulting in deteriorated vision.



About four out of ten children born in Sweden before gestational week 30, develop some kind of ROP. In most children, the ROP disappears spontaneously without leaving any significant problems regarding the retina or the vision of the child. In some children (around 8 %), the retinal disease deteriorates to a more severe type of ROP, requiring treatment to prevent retinal detachment and impaired vision.

Treatment

Laser treatment is the most common type of treatment and is given to stop the abnormal development of the vessels of the peripheral part of the retina. The treatment is usually performed under general anaesthesia. In most cases the treatment has a good effect and very rarely a child becomes blind because of ROP. In some children several laser treatments are needed. Sometimes another type of treatment is given, Anti-VEGF, which is injected into the eye under anaesthesia or sedation. This treatment also reduces the abnormal development of retinal vessels and the risk of retinal detachment.

Examination of the eye

To detect children in need of treatment for ROP, examinations of the eyes of all children in Sweden, born before gestational week 30, are performed.

The first examination is undertaken at 1-2 month's age and the examinations are continued with 1-2 weeks intervals until the retina is covered with vessels, often around full term, i.e. at 40 weeks of gestation.

Before the examination the child is given eye drops, to make the pupils bigger. The eye doctor examines the interior of the eye with the help of a light and a magnifying lens, held in front of the eye. A camera can also be used for examination and photography of the eyes.

At the examination, the eyelids are held apart, which is often facilitated by the child sucking a pacifier with breast milk or a solution of sugar. In case of using a camera, the child is given anaesthetic eye drops before the examination.



The eye examinations are stopped when the development of the vessels is completed, regardless if the child has received treatment or not. If the ROP has not regressed or if the development of the retinal vessels is not completed when your child is moved to another ward or hospital, it is very important that the eye examinations are continued at the new ward or hospital, or at the eye department to which your child belongs.

Follow-up

Children who have been treated for ROP should be regularly followed up during childhood and adolescence.

Also children born before 28 weeks of gestation, regardless if they have had ROP or not, will be followed up at 2,5 and 6,5 years respectively, since they have an increased risk of strabismus (squint) and an increased need of glasses.

If you suspect that your child has a squint or has some kind of visual problem, or if you have other questions, it is important that you contact the eye department to which your child belongs.

Quality register for ROP (SWEDROP)

To improve the quality of eye care, data about the eye examinations of your child are collected in a quality register for ROP (SWEDROP), which is a side register of the Neonatal register SNQ.

Your child has the right to avoid being registered. Your child also has the right to have its data deleted from the register. In this case, you may contact the department or the departments where your child has been treated, or tell the department at your next visit.

For information on data and secrecy, register extract form and a form to say no, see information at the homepage of SWEDROP, with a link to the neonatal register SNQ.