



Tackling retinopathy in premature babies

ROP or Retinopathy of prematurity is a condition which affects preterm infants (born before the due date more so before 32 weeks after gestation) or with a low birth weight less than 1,500 gms.

Today with well-trained neonatologists in our country, very small babies and low birth weight babies are surviving, bringing cheers to their parents. However, they also bring along with them a host of new eye diseases, which were uncommon in the past. Not all premature babies develop ROP & other eye problems, but incidence is much higher in these infants.

The structure of the eye starts to develop at about 16 weeks of pregnancy. The blood vessels in the retina develop from the centre, near the optic nerve & proceed towards the periphery. During the last 12 weeks of a pregnancy, the eye develops rapidly. When a baby is born full-term,

the retinal blood vessel growth is mostly complete. But if a baby is born prematurely, before these blood vessels have reached the edges of the retina, normal vessel growth may stop. The edges of the retina, the periphery, may not get enough oxygen and nutrients.

The periphery of the retina then sends out signals to other areas of the retina for nourishment. As a result, new abnormal vessels begin to grow.

These new blood vessels are fragile and weak and can bleed, leading to retinal scarring. When these scars shrink, they pull on the retina, causing it to detach from the back of the eye. This is called as Retinopathy of Prematurity.

Risk factors

Other than prematurity and low birth weight, many other factors have been implicated for ROP.

Severe respiratory distress, anaemia, repeated blood transfusions, prolonged course in the incubator, excessive use of oxygen are a few of the factors which may contribute to the development of ROP.

If not recognised and treated early enough, ROP can lead to detachment of the retina and total permanent blindness.

Treatment

Not all ROP needs treatment. In most cases, it could be a very mild form which just requires a careful follow up to look for complications. However if new vessels do form, the most effective treatment involves use of Laser.

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