Treatment of Retinopathy of Prematurity in Infants before 27 Weeks of Gestation in Sweden

Abstract:

ROP is a significant cause of blindness and an even bigger problem in the underdeveloped world. In the developed world major advances have occurred in the diagnosis, treatment and in research. Most recent developments such as the prospective early treatment for ROP (ETROP) established the importance of proper screening and earlier treatment. The treatment has advanced from cryopexy to almost exclusively laser surgery. Research has highlighted the importance of vascular endothelial growth factor (VEGF) in determining the course of the disease which in turn has provided a new and exciting anti-VEGF treatment such as Avastin. The significance of these advances is that with proper screening and timing of appropriate treatment over 90% of ROP has a successful anatomical outcome. Screening is how a major issue for neonatologist and ophthalmologist. Individual guidelines exist in most countries but sometimes cause logistic and economic problems. However, advances such as use of the Retcam that can provide reproducible digital retinal image, has allowed for the possibility of screening by technicians and nurses.

The study by Austeng et al in Sept. issue of BJO addresses some very fundamental issues and draws clear cut conclusions. It carries weight because it is a national prospective and population based study. They found that infants with lower gestational age under 27 weeks are at increased risk of requiring treatment. These infants reached treatment criteria earlier than infants after 27 weeks; one fifth (20%) of infants below 27 weeks required treatment. They also demonstrated a significant relationship between cumulative number of laser spots and postnatal age. They also reported that one third of the infants in the study needed supplemented laser therapy due to the presence of skip areas. This is a problem particularly as most of the infants were treated under general anaesthesia. It is also a higher percentage than most other studies. This is explained by the fact that many doctors were involved in treatment and may suggest inexperience. This article also highlights a very important issue, namely that treatment should be instituted within 72 hours between decision to treat and first treatment. Once ROP becomes aggressive it advances very rapidly and urgent treatment is imperative. The fact that 20% of children required treatment illustrates the importance of proper screening because this is a preventable cause of blindness.

This is a very good study and confirms all of the features of ROP that are familiar to most surgeons who screen and treat ROP. It highlights very practical aspects that make a difference to the prognosis. The prognosis is profoundly influenced by the proper screening and treatment expertise of the surgeon.

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References


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