Retinopathy of prematurity: What’s new about the pathogenesis and treatment?

Retinopathy of Prematurity (ROP) is a leading cause of childhood blindness in developing and developed countries. CRYO-ROP (Cryotherapy for ROP) and ETROP (Early Treatment of ROP) studies demonstrated various successful outcomes after peripheral thermoablation (cryo/laser) of avascular retina. Cryo-ablation was successful in 75% of the cases in the CRYO-ROP study. After the cryo era, even with high success rates of up to 98% depending upon the severity of the disease, laser was not effective, particularly in zone I and aggressive posterior ROP (APROP) cases. Research data demonstrated the role of vascular endothelial growth factor (VEGF) in the pathogenesis of ROP and anti-VEGF treatments were developed as another therapeutic option. It seems that anti-VEGF treatment is about to become the gold standard in ROP management. Despite an ongoing debate about the possible systemic adverse effects, clinical practice of intravitreal anti-VEGF (bevacizumab) injection demonstrated a better systemic clinical course in all premature babies without any exception besides dramatically successful results for ROP. Those results were able to give some clue about a possible one pathogenic mechanism for all morbidities including intracranial hemorrhage and associated cerebral complications, Bronchopulmonary Dysplasia (BPD), Necrotizing Enterocolitis (NEC) and ROP. Details of this possible pathogenesis will be discussed in this lecture.

Biography

Huseyin Yetik was graduated from Istanbul University in 1996 and completed his Ophthalmology Residency program in 2000 from Istanbul University, Cerrahpasa School of Medicine. He became an Associate Professor in 2006 and full Professor in 2014 in Cerrahpasa. He has worked in several governmental and private hospitals as Academician including Goztepe Educational Hospital, Zeynep-Kamil Educational Hospital, Yeditepe University School of Medicine; Memorial Health Group. He has also worked in Azerbaijan, Albania and Kazakhstan as Academician and Vitreoretinal Consultant. He is currently a Professor at Istanbul University, Cerrahpasa School of Medicine and Vitreoretinal Consultant and Chief of Ophthalmology Department of Surp Pirgic Armenian Foundation Hospital which is one of main Armenian Foundations in world as well as he is also a Chief Vitreoretinal Consultant Surgeon of 15 private hospitals in Istanbul, Turkey. He is a Member of American Academy of Ophthalmology, American Association of Retina Specialist, European Retina Society (EURETINA) and Turkish Ophthalmology Society.

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