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EDITORIAL

Editorial: Pediatric Ophthalmology – Part II

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In the preceding issue of the Journal, some important aspects of pediatric ophthalmology were covered, including the burden of pediatric blindness, retinoblastoma, retinopathy of prematurity and management of external ocular infections in childhood [1]. Going forward, in this second and concluding part of the special symposium on pediatric ophthalmology, we again have experts putting together their thoughts and experience in writing these insightful reviews on some of the other major topics in the domain of pediatric ophthalmology.

The travails of losing vision due to the development of a cataract in adults is universally well known. It is a travesty however when a newborn child, a toddler or a young child becomes blind due to sheer ignorance amongst care givers that they too can have cataract; blindness from which is entirely avoidable by early detection and referral for timely surgery. Khokhar S et al. in their review cover the various facets of clinical presentation, diagnosis and management of pediatric cataracts [2]. The value of early surgical intervention and optical rehabilitation in helping these children develop normal vision is rightfully emphasized.

Many ailments of the body tend to affect several organs either at presentation itself or in the early course of its evolution. Owing to the unique location and optically clear pathway of the eye, clues to a myriad number of rare systemic disorders and some infectious diseases can be obtained by a meticulous examination of the pediatric eye. The implications of such an examination is often enormous, for example, detection of choroidal tubercles in a child being managed as neurocysticercosis or the detection of typical choroidal lesions of *Pneumocystis carinii* in a child with etiologically undiagnosed pneumonia. Pillai and his colleagues provide a detailed overview of the various ocular manifestations that could be seen in children with various developmental and acquired disorders [3]. The impact of this review is enhanced by the inclusion of a large collection of images.

In years bygone, genetics was confined to the pages of medical textbooks. After the revolutionary human genome project and over the past decade or so, genetics has steadily moved from the bench to the bedside. With exponential increase in computational power and advancements in defining the gene frequency of various ethnic populations, the disease causing and disease modifying effects of genes is being better understood. Genetic diagnosis has progressed from simple karyotyping in the past to whole exome sequencing. Also, genetic loci for several diseases have become so well established that therapeutic trials using gene therapy is becoming a reality. Verma IC, a doyen in the field of medical genetics, along with his colleagues, in their review, take the readers on a masterful journey starting from the basics of genetic inheritance to the very details of genetic derangement in developmental disorders of the eye and to the discovery of suppressor tumor genes during the study of retinoblastoma, a common pediatric ocular tumor [4].

Developmental and molecular defects of the retina at the cellular level is responsible for a vast majority of patients having childhood blindness. There are innumerable phenotypic and genotypic variants of these retinal disorders. Amongst all these, one condition that has attained widespread interest is Leber's congenital amaurosis (LCA) as it is considered an ideal candidate for gene therapy. In fact, the US FDA has recently approved (only a few weeks ago), commercial use of gene therapy in patients with LCA. In this context, the review on LCA by Brijesh T and authors is very timely and provides insight into the characteristics, genetic variants and the results of early gene transfer studies [5]. The road to successful gene therapy is still potentially unexplored, long and arduous but the initial successes in relation LCA, seem to provide a glimmer of hope.

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Compliance with Ethical Standards

Conflict of Interest None.

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