Pediatric Ophthalmology Changing with the times

The specialty of pediatrics evolved from general medicine in the 18th century in Europe. At this time, physicians recognized that children are not small adults but have unique characteristics and medical problems. Subsequently, the medical community recognized the need for specialized care for children. From mid-1800s, Children’s Hospitals were introduced in the United States (US). These specialized hospitals originally opened in Philadelphia in 1855, Boston in 1869, and Detroit in 1886 as small units. Over time they have grown and become successful, with every major city in the US having a dedicated Children’s Hospital. In May 2012, Johns Hopkins Medical Center celebrated the opening of its new, state of the art, Children’s Hospital.

Medical specialties, including ophthalmology also had to adapt to this change in paradigm of adult versus children’s health. Dr. Frank Costenbader, an American ophthalmologist, was the first to limit his ophtalmic practice to pediatrics in 1943. He recognized the importance of treating children at an early age prior to full development of the visual system. Dr. Costenbader’s commitment to children along with his subsequent trainees including Dr. Marshall Parks, Dr. Daniel Albert, and many others who followed evolved into the subspecialty of pediatric ophthalmology. Initially the focus of this new specialty was strabismus and preservation of binocular function. Many of the changes introduced by Dr. Costenbader are followed today including utilization of a children friendly environment, having parents in the induction room when a child receives anesthesia, elimination of bandaging of the eyes after strabismus surgery, and shortening the hospital stay from two nights to same day surgery.

Today, the field is changing again. Pediatric ophthalmology no longer focuses mainly on strabismus. Incorporating new techniques and technology from adult ophthalmology, the field has branched into mini-specialties and interests ranging from cornea, glaucoma, retina, plastics, cataracts, and refractive disorders in children. In this special “Pediatric Ophthalmology Update” issue we have incorporated a range of articles showing the variety of eye disorders that anyone with interests in children will encounter. Regional articles showing unique results include laser treatment in central Saudi Arabia for retinopathy of prematurity and compliance of patching for amblyopia in Saudi society with its cultural concerns. Plastics review articles on orbital fracture more commonly seen in children and infantile hemangioma present exciting new treatments that are gaining traction. Additionally there are management articles on rhegmatogenous retinal detachment, non-traumatic pediatric ectopic lentis, and pediatric cataracts involving intraocular lens implantation in children with its unique concerns and characteristics. Application techniques and technologies initially beneficial for adults, which are now employed in children, include exciting results from Descemet’s stripping automated endothelial keratoplasty and use of glaucoma valve implants. Of course we included a more traditional article on comitant strabismus with an interesting perspective on current and future considerations.

Pediatric ophthalmology will continue to evolve. Researchers and physicians recognize the unique characteristics of pediatric eye disorders. The field also benefits from basic science research in genetics and developmental disorders. In fact, the first tumor suppressor gene to be isolated in humans was from retinoblastoma in 1986. Genetics studies in Saudi Arabian families have helped to isolate mutations in pediatric glaucoma. Contributions to pediatric ophthalmology will continue as clinical and pharmacological research focus in the treatment of pediatric eye disease. It is an exciting time in this field today and will continue to be for many years to come.

References

