## Delay in pediatric cataract surgery

Pediatric cataract is a disease that prevents as many as 2.2 to 13.6 per 10,000 children worldwide from seeing. [11] It limits their potential as well as opportunities for a brighter future and is an important treatable cause of childhood blindness. Though included in the 30 disorders for screening under Rashtriya Bal Swasthya Karyakram, pediatric cataract remains highly under-diagnosed in India. What makes the situation grimmer is the surgical delay in these children worsening the visual outcome.

Visual impairment, especially in children, brings a lifetime of social, emotional, and economic difficulties.[2] Hence pediatric cataracts managed on time can tremendously improve the lives of the patients, their families, communities, and the socioeconomic success of the country. The timely diagnosis and treatment of pediatric cataracts require zealous efforts from parents, the family, teachers, pediatricians, ophthalmologists, anesthetists, and the government. The time at which a pediatric cataract is operated on is important, as a delay in surgery affects the overall visual outcome. [3,4] The problem is that in developing countries, neonatal screening for cataracts is not a norm, and hence these cases present late. Therefore, effective and regular awareness programs and training sessions for school cataract screening are needed. Additional factors responsible for delay include delayed recognition, cost, lack of knowledge among the parents, and limited access to specialist centers. [5,6] There is often a problem of acceptability of treatment by parents in India. Also, making healthcare facilities equally available at the grass-root level in the rural and urban areas is of utmost importance.

North India's childhood cataract study is the first of its kind in a cross-sectional epidemiological study from North India.<sup>[7]</sup> The authors have highlighted the clinical presentation and factors responsible for the delay in pediatric cataract surgery through a validated subjective questionnaire. The authors interviewed parents or legally authorized representatives of all the pediatric patients aged ≤12 years with unilateral/bilateral congenital or developmental cataracts, presenting to the Dr. Rajendra Prasad Centre for Ophthalmic Sciences for cataract surgery. This study gives an identifiable cause for cataracts in 66.29% of patients, with white reflex as the first noted symptom in two-thirds. They also found parents (60.67%) followed by pediatricians (11.23%) and relatives (7.87%) to be the first ones to identify the symptom. The data presses upon the issue of parents' literacy and awareness activities as well as adequate training of teachers for early detection of pediatric cataracts. The study defines the primary causes for the delay were long waiting for general anesthesia (30.33%), systemic ill health (14.61%), and parents seeking a second opinion (12.36%). The study also highlights the social factors like gender differences, economic status, and unavailability of nearby healthcare services, which we need to circumvent as a society.

There might be an under-reporting of hereditary cases in our country, as genetic testing is still not the norm in pediatric cataracts. The definitive treatment is surgery, but since patients belong to lower economic strata, so many parents do not consent to genetic testing. It is also worth noting that the study reports a considerable proportion of cataracts as developmental (37%). A large proportion of developmental cataracts signify unexplored environmental factors and nutritional deficiencies that can be explored. Also, there might be a subset of developmental cataracts, which are congenital but reported late. We feel it is necessary to comment on the age criteria used to define developmental cataracts by the author, i.e., cataracts that develop in the first decade of life. An early developmental cataract would interrupt the visual maturation process and lead to a poorer prognosis. In contrast, a developmental cataract developing in the latter half of the first decade may have a better visual outcome even after a surgical delay. Therefore, sub-classifying it may be beneficial. The definition of "late presentation" is not clearly defined in the study and may be more ambiguous in developmental cases.

Surprisingly, nystagmus was not noted as a symptom in the present study. Nystagmus can be an important symptom and sign that can establish the congenital nature of the cataract in those presenting late. Sometimes it is challenging to interpret non-verbal cues in a child with developmental delay; hence, these children might also be presenting late. The study's sample size is relatively small, and we need more epidemiological studies to establish factors causing a delay in the presentation of congenital cataracts. Whether the family structure, number of siblings, literacy level, and parents' occupation influence the timing of presentation can also be studied. While a delay in recognition can be decreased by community awareness, a surgery delay might be reduced with a more robust referral system and healthcare infrastructure.

Nevertheless, the study highlights critical messages for all of us. Family physicians and pediatricians are an essential link as they can be the first medical contacts of pediatric patients. Hence, rigorous screening should be encouraged on their part. Screening for cataracts at birth and at the time of subsequent vaccinations can be made a policy in our country. This study gives an excellent base for future studies to evaluate the differences in prevalence and causes of delay in urban vis-à-vis rural population of the northern states of India.

The burden of the waiting list for general anesthesia, complex pre-operative evaluation, and challenges during surgery and post-operative rehabilitation also causes delay. [6] It hinders the overall visual outcome in pediatric patients with cataracts. We congratulate the authors for emphasizing that delayed recognition, delayed presentation, and delayed surgery for pediatric cataract remains a significant problem in India.

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