



INFANTILE STRABISMUS: BARRIERS TO SURGICAL INTERVENTION

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ABSTRACT

Infantile strabismus needs to be managed within the first few years of life to avoid permanent visual disability due to amblyopia. Various socio-cultural norms delay medical intervention as the uptake of services even in accessible locations is determined by several factors or barriers that must be addressed.

INTRODUCTION

Strabismus affects 3-5% of children and infantile strabismus (strabismus starting in the first year of life) affects about 1% of full term, healthy newborns. Early onset Strabismus is a leading cause of visual loss and impaired binocular vision due to amblyopia [1]. Infantile strabismus has a comparable potential as eye injury for causing visual impairment and the incidence of monocular visual loss due to strabismic amblyopia exceeds that due to eye trauma [2]. Infantile strabismus also results in psychosocial issues as children with strabismus may face hostility and rejection from their peer groups as young as 6 years of age [3].

Utilization of healthcare services is affected by a variety of socio-cultural factors but most studies on barriers to accessing eye care services have concentrated mainly on cataract patients [4]. Currently, schools and family members are the primary source of identifying a child's eye problem [5] and more community based ophthalmic preventive health care screening is needed. However, early identification of the problem is only a partial solution as the uptake of services even in accessible locations is determined by several factors or barriers that

must be addressed if we are to improve the uptake of services [6].

A systematic effort to collate and analyze data on barriers to eye care as perceived by parents of children with infantile strabismus in rural areas will be a valuable addition in designing locally suitable programs that are aimed at early identification and management.

REVIEW

Rashtriya Bal Swasthya Karyakram (RBSK) is a National Rural Health Mission (NRHM) initiative aiming at early identification and early intervention for children from birth to 18 years of age to cover 4 'D's viz. Defects at birth, Deficiencies, Diseases, Developmental delays including disability. The scheme includes screening of government and government aided schools and anganwadis. The intention of the scheme is universal screening at the level of community which would lead to reduction in mortality, morbidity and lifelong disability.

Under the RBSK scheme, children requiring ophthalmic care are referred to our center and receive free treatment and surgery. Following initiation of the program, it was realized that most of children with strabismus have a delayed presentation. The mean age at presentation of patients with infantile strabismus was 9.47 ± 4.2 years (range 2.5 to 18 years).

However, infantile strabismus should be managed

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Review Article



within the first year of life to avoid potential lifelong visual disability.

In an effort to elucidate the barriers to ophthalmic services, parents /guardians of children referred to our centre for infantile strabismus management were asked about personal and cultural beliefs regarding strabismus, perceived appropriate age for treatment, accessibility to ophthalmic services, and economic barriers to initiation and continuation of treatment. The duration of the study was one year (Jan 2014-Dec 2014). Total number of children with strabismus referred in this period was 494 with the total number of children with infantile strabismus was 167(33.8%). It was found that approximately 1/3rd of all cases of strabismus in the study had an infantile onset. More than 50% of subjects with infantile strabismus already had visual deficit due to amblyopia.

The main reasons given by the parents/guardians in decreasing order of frequency were:

- Ignorance that 'the condition is treatable if managed at the right age' (33.5%)
- Belief that 'the eye will get better with time without surgery' (20.7 %%)
- Familial / Social misconception that 'the child is too young for surgery' (14.9%)

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- Improper guidance by a medical professional 'to wait for surgery till the second decade' (13.8%)
- Access to eye care services (10.2%)
- Economic difficulties (6.9%)

CONCLUSION

Infantile strabismus is a serious public health problem and it is critical to address this condition with early diagnosis and intervention. The main factors responsible for delay in treatment are ignorance that the condition is treatable, social misconceptions regarding strabismus and improper medical advice to delay surgery till the child grows up.

A child's readiness for surgery is a complex decision for the parents and is heavily influenced by cultural factors. Beliefs are an important cultural determinant of treatment-seeking behavior. RBSK is a national screening program with an effective referral mechanism and provision of conveyance for children and their parents to the hospital, thus ensuring appropriate surgical intervention in these children. Further strengthening of such programs with special emphasis on early detection could assist in a more timely initiation of treatment in such children.

