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Psychosocial Impact and Quality of Life in Children with Strabismus

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ABSTRACT

Strabismus is a condition due to misalignment of the visual axis of the eyes, also known as a squint. Squint eyes can be clearly seen by others, and give symptoms such as double vision or blurred vision. In a systematic review study revealed that 1 in every 50 people suffer from strabismus, and this disorder greatly affects their quality of life. Psychological impacts on people with strabismus can be caused by environmental factors, such as the non-acceptance of strabismus sufferers in the social environment. If strabismus is not treated in a timely manner in children, besides cosmetic consequences, it can have a dramatic impact on learning abilities, impairing their physiological and psychological performance, ultimately affecting their development and maturity. In particular, a positive effect of strabismus surgery has been demonstrated post strabismus surgery.

1. Introduction

Strabismus is a condition due to the visual axis of the eyes being different and misaligned, it could be either esotropia or exotropia.^{1,2} It is a common condition in children, and affects about 2-4% of normal child development.³ As an ophthalmological problem that has a negative impact on quality of life due to visual disturbances and abnormal appearance. Strabismus is associated with specific and non-specific negative impact such as problems in social interaction, reduced self-confidence, social anxiety, interpersonal relationships, and physical appearance.^{4,5} In a recent study children with a squint on children aged 6 years or older were less likely to be accepted in their social environment. This negative impact on strabismus appears around this age so the

psychosocial impact is an indication of corrective surgical management of strabismus before 6 years old.⁶ Therefore, the researcher took this topic because strabismus has an impact on psychosocial and quality of life in children.

Definition and epidemiology of strabismus

Strabismus is a condition due to misalignment of the visual axis of the eyes, also known as a squint. Squint eyes can be clearly seen by others, and give symptoms of double vision or blurred vision.⁷ This misalignment can be caused by abnormalities in binocular vision or by anomalous neuromuscular control of ocular motility.⁸

The prevalence of strabismus varies widely in the world but Kvarnström et al. conducted a study of strabismus in children aged 1-12 years and reported that age is an important determinant of differences in the prevalence of strabismus between different age groups. In this study, the highest prevalence of strabismus was seen in children aged 4 years followed by a downward trend thereafter, which was associated with a decrease in the prevalence of hyperopia with age and early detection of the disease at a lower age.^{9,10} In one systematic review study revealed that 1 in every 50 people suffer from strabismus, and this disorder greatly affects their quality of life. If strabismus is not treated in a timely manner in children, besides the cosmetic consequences, it can have a dramatic impact on learning abilities, impairing their physiological and psychological performance, and ultimately affecting their development and maturity.⁹

Psychological impact on strabismus

The psychological impact on people with strabismus can be caused by environmental factors. Uretmen et al. conducted research by attaching photos of two boys and two girls and then digitally editing them to take photos of the same child in orthotropic, esotropic, and exotropic conditions. Elementary school teachers assessed their perceptions of children's personal characteristics using a 10-item list of personal characteristics based on their responses to this full-face photo. Participants were also asked to answer five questions regarding the first impressions created by the photos. Children with esotropia and exotropia were rated more negatively than children with orthotropia. Children with esotropia are viewed more negatively than those with exotropia.¹¹

A similar study was also conducted by Mojon-Azzi et al. where they want to determine whether children with strabismus can be accepted in socializing and find out at what age the negative psychosocial impact interaction appears. The method used is quite interesting by attaching photos of 6 children and digitally changing them to take photos that are identical twins except for the eye position (orthotropic,

esotropia, and exotropia) and the color of the clothes. One hundred and eighteen children aged 3-12 years were asked to choose among six pairs of twins who had to choose one to invite to their birthday party. The results of his research that children aged 6 years or older with a squint look less likely to be accepted by their social environment. This negative attitude towards strabismus appears around the age of 6 years.⁶

A study to look at the quality of life (QOL) in children with strabismus who underwent strabismus surgery. Ziai et al. conducted a prospective cohort study of 87 children (41 boys, 47.1%) with a mean age of 8.7 ± 4.1 years at three eye hospitals in Tehran. Interviews were conducted with the parents before and three months after surgery by filling out a modified form of the QOL questionnaire version of the RAND Health Insurance Study. The questionnaire consisted of 36 items on a Likert scale ranging from 0 to 100, with higher scores representing better functioning. Relevant items were averaged together and categorized into 11 different QOL dimensions. According to the results of this study, surgery has a positive impact on most aspects of quality of life and significantly improves physical, emotional, and social functioning.⁴ The results of this study are consistent with the report of Archer et al. except for the positive well-being subscale. Other studies have also confirmed the psychosocial benefits of surgical correction of strabismus. In particular, the positive effect of strabismus surgery on self-esteem and self-confidence has been previously demonstrated. Mruthyunjaya et al. reported that 61% of children under 4 years of age experienced an improvement in eye contact and 55% of children between 4 and 6 years had better self-esteem and self-confidence after strabismus surgery. Positive effects of strabismus surgery on self-esteem and self-confidence have been shown previously. Mruthyunjaya et al. reported that 61% of children under 4 years of age experienced an improvement in eye contact and 55% of children between 4 and 6 years had better self-esteem and self-confidence after strabismus surgery.¹²

2. Conclusion

The negative psychological impact on people with strabismus can be caused by environmental factors. This negative impact on strabismus appears around the age of 6 years, so the psychosocial impact is an indication for corrective surgical management of strabismus before the age of 6 years. Strabismus surgery has been shown to have a positive impact on most aspects of quality of life and significantly improve physical functioning, and emotional and social self-confidence.

3. References

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