

Spasm of Near Reflex Mimicking Acute Acquired Comitant Esotropia

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Abstract

Case Report

We report the case of a 7-year-old girl who presented with sudden diplopia and blurred vision. She had a constant, comitant, alternating esotropia. Ocular motility and pupillary reactions were normal. She was diagnosed to have spasm of the near reflex presenting as acute onset of esotropia. Her mother appeared very nervous and her attitude toward her daughter was very strict. We presumed that the etiology was functional. We instructed her mother to treat the daughter kindly. One month after prescribing glasses, her best corrected visual acuity was 1.2 in each eye. She was orthophoric at distance and near, and her diplopia was completely resolved. Spasm of the near reflex needs to be considered in the differential diagnosis of acute acquired comitant esotropia.

Keywords: Spasm of near reflex, Acute acquired comitant esotropia.

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INTRODUCTION

Spasm of the near reflex is a rare and usually self-limiting disorder that involves intermittent and variable episodes of esotropia, pseudomyopia, and pupillary miosis [1-5]. Acute acquired comitant esotropia is an unusual presentation of strabismus in older children and adults characterized by acute onset with diplopia, concomitance of strabismus, a large angle of deviation, absence of parietic element, and potentially normal binocular vision [2]. The etiology of spasm of the near reflex is usually functional, and usually not considered in the differential diagnosis of acute acquired comitant esotropia because a typical presentation with intermittent, small-angle esotropia, pseudomyopia, and miosis are easily differentiated [1-5].

We present a case of spasm of the near reflex presenting with a constant esotropia, diplopia, and blurred vision after high fever that may be mimicked as an acute acquired comitant esotropia.

CASE REPORT

A 7-year-old girl presented with complaints of diplopia and blurred vision after high fever for the past 2 weeks. Her best corrected visual acuity was 1.2 in each eye. However, variable unaided visual acuities (0.15 to 0.8) were evident during examination. Ocular motility was full. Pupils were equal in size, and reflexes were equally reacting to light in both eyes. Cover test showed a large-angle comitant, alternate esotropia. The

esotropia measured 30 prism diopters (PD) at distance and near.—Her esodeviation did not change with the addition of +3.0D lenses. Autorefractometer showed a high myopia of approximately 8.50D in the right eye and 9.00D in the left eye. The fundus was normal. The neurological evaluation was normal. The patient was advised cycloplegic refraction after application of cyclopentolate hydrochloride. On review, the cycloplegic refraction of right eye was 0.00D /-0.50D 140 and left eye was +0.25D. She was prescribed glasses with -0.75D in the right eye and +0.75D in the left eye. Since the initial visit, her mother appeared very nervous and her attitude toward her daughter was very strict. Therefore, we presumed that the etiology was functional, and the patient was diagnosed with a spasm of the near reflex. At the same time, we instructed her mother to treat the daughter kindly. One month after prescribing glasses, her best corrected visual acuity was 1.2 in each eye. She was orthophoric at distance and near, and her diplopia was completely resolved. During one year follow-up, no symptoms were evident of either convergence spasms or any other somatic disorders.

DISCUSSION

In this case, we initially suspected acute acquired comitant esotropia because it developed after high fever, but eventually she was diagnosed with spasm of the near reflex.

Acute acquired comitant esotropia is an uncommon presentation of strabismus in older children

and adults [2]. Three main types had been described. The Swan type (type 1) refers to an esotropia due to the interruption of fusion. Burian-Franceschetti type (type 2) lacks clear associations; however, physical or psychological stress has been suggested as precipitating factors. Bielschowsky type (type 3) has been described in myopic subjects. Type 2 is characterized by an acute onset with diplopia, a large angle of deviation, absence of abducens nerve palsy, and potentially normal binocular vision.

The course of therapy for spasm of the near reflex depends on the etiology [1-5]. Most cases are caused by a functional disorder. If an emotional etiology is suspected, psychological counseling is in order. Emotional instability may result in a variety of ocular manifestations besides convergence spasms, such as blurred vision, monocular diplopia, tunnel vision, blepharospasm, and nystagmus. Other conventional therapy consists of atropinization of the eyes and the prescription of plus lenses for near vision. Generally, it is useful to produce cycloplegia in an attempt to break the cycle of sustained maximal convergence and accommodative spasm. However, prolonged atropinization of the eyes can give rise to side effects. Dilated pupils can lead to photophobia and blurred vision with near fixation and the wearing of reading glasses can cause discomfort. In this present case, satisfactory result was obtained with proper prescription of glasses and advice to her mother.

CONCLUSION

This case emphasizes the need to consider spasm of the near reflex in the differential diagnosis of acute acquired comitant esotropia. A careful assessment of visual acuity, ocular alignment, autorefractometer, and cycloplegic refraction to detect induced myopia are key points to making the correct diagnosis.

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