

CASE REPORT

SELF INJURIOUS BEHAVIOUR (SIB) OF EYE POKING IN A TODDLER WITH AUTISM, NEUROFIBROMATOSIS AND INFANTILE SPASM

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Abstract

Objective: There is sparse data on self injurious behaviour in autism from developing countries. We describe a rare case of self injurious behaviour in a three-year-old toddler with autism, neurofibromatosis, infantile spasms and developmental delay. **Methods:** We reported a case of Master ABC, a three-year-old boy presented with eye poking behaviour and autistic symptoms such as stereotypic behaviour, decreased social interaction, delayed speech, solitary play, etc. He was diagnosed with autism. He also had neurofibromatosis type 1 and infantile spasms and was on Antiepileptic for the same from the Neurologist. His ophthalmological evaluation was normal and was given symptomatic treatment. He was started on the tablet risperidone 0.25 mg od and behaviour therapy, occupational and speech therapy for his autistic symptoms with significant improvement in his symptoms. **Results:** Self injurious behaviour such as eye poking in children with autism needs immediate attention to prevent long-term vision related complications. Self injurious behaviour can coexist with Neurofibromatosis 1 and Infantile spasms with autism and developmental delays. **Conclusion:** The multidisciplinary approaches can be used to reduce the self injurious behaviour of eye poking and also be beneficial in overall clinical management of the child with autism and developmental delay. *ASEAN Journal of Psychiatry, Vol. 18 (1): January – June 2017: XX XX.*

Keywords: Self Injurious Behaviour, Eye Poking, Autism, Neurofibromatosis

Introduction

Children with Autism-spectrum disorders can have been co-morbid self injurious behaviour such as head banging and self-biting, which are a key area of concern and can have social implications beyond the physical impact of the injurious behaviour and can lead to restrict educational and vocational opportunities, social isolation, limited access to community-based activities, costly medical and residential care[1]. We believe that it is important for clinicians who work with children with ASD to have an essential understanding of SIB in autism.

Case Report

Master ABC, a three-year-old boy was referred to the child and adolescent psychiatry clinic with chief complaints of eye poking behaviour, stereotypic repetitive behaviours, decreased social interaction, delayed speech, and solitary play. He also had global developmental delays in all domains of speech, cognition, motor, etc. He was a full-term normal delivery with no antenatal, perinatal or postnatal complications. He had been evaluated by a Neurologist and was diagnosed with Neurofibromatosis type 1 with infantile spasms and seizure disorder. The onset of seizures was at the age of 3 months. His last seizure was one month ago, and he

had three admissions in the past to control his seizures. He was on Syrup Sodium Valproate (5/200) 3ml bid, T.Lamotrigene 12.5mg bd, and T.Clobazam (5mg)1/2 tab bid, and Syrup Multivitamins 5ml OD from the treating neurologist. His physical examination revealed Cafe au lait spots on his skin. He was not cooperative for a formal mental status examination. He was restless, not interacting, showing repetitive behaviours, fascination for moving objects, staring at the fan, not giving eye contact and continued to poke his eye during the interview session episodically around three to five times in the one-hour caregiver and patient evaluation and interview session. A clinical impression of Autism with Self Injurious behaviour (eye poking) with Neurofibromatosis type 1, Infantile spasms and Global Developmental Delay was made.

His routine investigations, EEG and MRI were normal. Ophthalmologist reference was done. No significant abnormality was noted except for some periorbital scratch marks and mild conjunctival redness. He was prescribed topical steroids and topical antibiotic to prevent infection. He was administered the Modified Check list for Autism in Toddlers-Revised (MCHAT-R) on which he scored high risk for autism. He was administered the Vineland Social Maturity Scale (VSMS) where he was functioning at one year and eight-month level. A functional behavioural assessment was done for his SIB. He was started on T Risperidone 0.25 mg hsod and also referred to OT for Sensory integration therapy, Clinical Psychologist for Behaviour therapy and training, speech and language Audiologist for speech therapy. He responded well to medications and therapy and showed significant reduction in eye poking behaviour over next 4 to 8 weeks. His autistic symptoms of restlessness and irritability reduced, and his eye contact and speech improved slowly. He is on regular training for his autism and global developmental delay and is maintaining well.

Discussion

The etiology of SIB can be behavioral or biomedical or genetic cause. SIB that is maintained by automatic reinforcement is the most difficult type of SIB to change and requires immediate intervention in order to

avoid injury [1]. Carroll et al. [2] found five subtypes of aggression such as hot aggression only, cold aggression only, SIB only, aggression and SIB, and non- aggression.

Neurofibromatosis 1 (NF1) is characterized by multiple café-au-lait spots, axillary and inguinal freckling, multiple cutaneous neurofibromas, and Iris Lisch nodules. Less common but potentially more serious manifestations include plexiform neurofibromas, optic nerve and other central nervous system gliomas, malignant peripheral nerve sheath tumors, scoliosis, tibial dysplasia, and vasculopathy[3].Neurofibromatosis and co occurrence of autism spectrum disorder has a prevalence estimate of 21-40%[4].

Richards et al. [5] found the Quality-weighted effect prevalence estimates of ASD phenomenology for neurofibromatosis type 1 to be 18%. Saemundsen et al. [6] found that in children with infantile spasms, the prevalence of autism spectrum disorder was 17.6%. Staley et al. [7] found that TSC2 mutation, history of infantile spasms; history of seizures, mental retardation, and autism can be associated with SIB.

Behaviour dysregulation, as evidenced by the associations between self-injury, self-restraint, repetitive and impulsive behaviours, is identified as potentially influencing the severity and persistence of self-injury. The possibility of risk-related, targeted early intervention and the need for increased training of practitioners in the delivery of demonstrably effective interventions for self-injury could be beneficial in early recognition and management of self injurious behaviours in autistic children [8]. Apparent decreased pain reactivity observed in children with autism could be a different mode of pain expression related to difficulties with verbal communication, body representation and certain cognitive disorders and a significant relationship between certain self injurious behavior and apparent reduced pain reactivity [9].

Although antipsychotics are often used to reduce symptoms of behavioral problems, including self injurious behaviors. USFDA has approved only Risperidone and Aripiprazole to

treat irritability in autism. Among atypical antipsychotics, Olanzapine and Quetiapine are limited in their use for autism spectrum disorders in children because of high incidences of weight gain and sedation. Aripiprazole and Ziprasidone cause less weight gain and sedation, however, potential QTc interval prolongation with Ziprasidone has been reported [10].

Minshavi et al. [1] described that behavioral interventions for problem behaviors, such as SIB, typically consist of several key components. These interventions are typically used in combination to develop a comprehensive treatment plan that addresses the environmental factors that may trigger SIB to occur (antecedent manipulations), increase the presence of more appropriate behaviors (reinforcement-based strategies), and decrease the likelihood that the individual will continue to engage in SIB (extinction- and punishment-based strategies).

Conclusion

Self injurious behaviour such as eye poking in children with autism can be dangerous and needs immediate attention to prevent long term vision related complications. Self injurious behaviour can coexist with Neurofibromatosis 1 and Infantile spasms with autism and developmental delays. Use of multidisciplinary approaches such as Sensory integration, behaviour therapy, psychopharmacology and training can be used to reduce the self injurious behaviour of eye poking and also be beneficial in overall clinical management of the child with autism and developmental delay.

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