

Deviant sexual behaviors and treatment approaches in neurodevelopmental-genetic disorders: A case report

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Abstract

Neurodevelopmental disorders (NDDs) include a huge variety of pathologies characterised by varying degrees of intellectual disability and behavioural dysfunction including deviant sexual behaviors. Despite high prevalence of comorbidity between NDDs genetic disorders and deviant sexual behaviors, etiologic common underpinnings of these disorders and treatment approaches are still incapable. Here we present a case report about comorbidity of autism (Asperger disorder), Attention Deficit Hyperactivity Disorder (ADHD) and Williams Syndrome (WS) within a multidisciplinary setting to determine issues of diagnosis (genetic, neurologic and psychiatric background) and psychiatric treatment approaches including CBT therapy and fluoxetine treatment.

The current case presentation is valuable for considerable reasons. Firstly, it provides further evidence of the delays and difficulties in obtaining correct diagnoses for high-functioning children on the autism spectrum. Secondly, evidence has been examined that autism, ADHD, Williams syndrome, and deviant sexual behaviors may have common genetic basis. And finally, the efficacy of psychotherapy and fluoxetine treatment has been proven in deviant sexual behaviors that seriously impair the quality of life of the child and the family.

Keywords

neurodevelopmental disorders; autism; ADHD; williams syndrome; deviant sexual behaviors

Background

Deviant sexual behaviors are characterized by autoerotic behaviors like object fetishism and person oriented behaviors like partialism (body part fetishism), voyeurism, frottage and pedophilia [1].

In the last few years, normative sexuality among individuals with autism spectrum disorder (ASD) have gained a greater interest but neurobiological underpinnings of ASD and deviant sexual behaviors are still unknown.

In this case report we will report an adolescent with ADHD (Attention Deficit Hyperactivity Disorder), ASD and WS (Williams Syndrome) with paraphilic behavior and convictions for sexual behaviors in the light of literature. We aim to discuss his assessments within a multidisciplinary setting to

determine issues of diagnosis, psychiatric treatment and risks.

Case Report

IK is an 16 -year-old boy with Williams Syndrome seen in psychiatry consultation first time, because of school difficulties and “odd behavior” including physically injuring other students, fall in platonic love with old women neighbours and exhibit sexually abusing behaviours, including direct sexual assaults, involving the touching of the hands and buttocks of old women. He had masturbation more than ten times a day and it was difficult for his parents to manage this behavior in social environments.

He had a history of poor motor and intellectual skills with an unusual gait before 6 years.

He sometimes tended to show interest in toys and group plays with children, but often played with the parts of objects for a long time. He liked shampoos and perfumes and tends to get extremely involved in a particular activity (watching television also advertisements of shampoos and cleansing detergents, smelling all perfumes while shoppings), also it is very difficult to turn his attention away.

After the age of six, his behaviors were generally worsened at home and school. He talked continuously about his “favorite” topics and wanted to smell his friends’ clothes even when they no longer wanted to be with him. He was unable to understand others’ feelings and so he could not maintain age appropriate activities with his friends.

During the psychiatric interview, he was very impulsive. He avoided eye contact, spoke constantly in his own areas of interest in a monotonous voice and he repetitively interrupted the conversation by asking questions about his interests. He universally failed respond to verbal and nonverbal cues.

He met the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5) criterias for attention deficit/hyperactivity disorder (ADHD) and Autism Spectrum Disorder. In addition, he met the criterias of Asperger’s disorder as per DSM-IV. He had high scores on the Yale Brown Obsessive Compulsive Scale and Beck Anxiety Inventory. According to the previous studies and case reports, patients with anxiety-related disorders, obsessions and/or paraphilic-related behaviour with AD sometimes benefit from selective serotonergic reuptake inhibitor (SSRI) pharmacotherapy [2-4]. He was commenced on fluoxetine, increased to 60 mg in incremental doses. Subjective accounts of masturbation frequency or stimulus arousal, together with frequency of, for example, glancing and touching behaviour showed reduction during the prescribing period of 60mg fluoxetine daily. For hyperactivity/impulsivity; 20 mg methylphenidate treatment was also added to the medication and deviant sexual behaviors towards to old women showed reduction in his social environment.

Consent, for the publication for this case report and any additional related information was taken from the parents of the patient involved in the study

Discussion

Although ADHD is frequent in WS, occurring in two-thirds of the cases [5], to our knowledge, this is the first case report on the coexistence of WS, ASD and ADHD presenting by impulsive deviant sexual behaviours. We have identified the areas in which we would like to take care when handling these comorbidities like in this case. Firstly, we want to underline the delays and difficulties in obtaining correct diagnoses for high-functioning children on the autism spectrum. One of the reasons for the delay in identifying with an autism spectrum disorder, Asperger Syndrome, was that his impulsivity, resulting in deviant sexual behaviour were long considered simply a manifestation of his syndrome. Also, a case

report of Williams syndrome who exhibited fetishism has been published [6] but there is not adequate evidence for association between paraphilic behaviours and the syndrome. Reports of paraphilic sexual interest or undesirable behaviours by individuals with Asperger disorder (AD) have been presented too [7,8]. Although interpersonal obstacles associated with AD might predict greater risk of paraphilia, there is no evidence that paraphilic-related psychopathology is associated with autism symptoms. In this case, besides WS and AD, we want to emphasize that the presence of ADHD might be an important vulnerability factor for sexual delinquency and this is a supportive observation for the hypothesis investigated in previous studies [9].

Second, as known, the genetic architecture of neuropsychiatric disease has shown to be complex, as demonstrated by genetic studies especially whole-exome sequencing (WES), chromosomal microarray and association studies. In recent studies, AD susceptibility genes and some SNPs have been identified on chromosome 7q. On the other hand, WS is caused by a deletion of 26–28 genes, including OXTR, on chromosome 7q11.23. Investigations of these genes of the WS deletion region highlights the defects on sociability and communication in children and teens with comorbid autism symptoms. In addition, a recent study that studied 261 ADHD probands and 354 of their siblings to assess quantitative trait loci associated with autism symptoms identified that a suggestive loci for social interaction was found on chromosome 7q11 [10]. Therefore, there could be an association between chromosome 7, Williams Syndrome and neurodevelopmental disorders especially in the presence of deviant sexual behaviors.

Finally, there is a great need to further understand the coexistence of deviant sexual behaviors and its genetic association with other mental health disorders. Speculation aside, case reports are still important for initiating linkage studies and positing candidate genes for the etiology or etiologies of these behaviors.

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