

Diagnostic Overshadowing in a Pediatric Population with Attention Deficit Disorder / Hyperactivity: Illustrated by a Case Study

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Abstract

Case Report

Diagnostic overshadowing occurs due to clinician bias, which is influenced by the salience of more obvious patient characteristics, leading to overlooked diagnoses. The complexity of diagnosing Attention Deficit Disorder / Hyperactivity arises from the potential overlap or association of ADHD symptoms with various medical, neurodevelopmental, and psychosocial issues. We shared a case report derived from our clinical experience and we will analyze the diagnostic overshadowing in children with ADHD using a psychopathological approach. Achieving accurate diagnoses for childhood mental health disorders is essential, as misdiagnosis has been linked to detrimental impacts on children's functioning.

Keywords: ADHD, Comorbidity, Child, Psychiatry, Overshadowing, Case report.

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INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder defined by the diagnostic and statistical manual of mental disorders (DSM-5) diagnostic criteria [1, 2].

The DSM-5 groups ADHD symptoms into 3 types of clinical presentation (Inattention, Hyperactivity-Impulsivity and Combined). Symptoms have been present since childhood and may persist into adulthood. The diagnosis of ADHD can be complex, as a number of medical, neurodevelopmental and psychosocial issues may mimic or be associated with ADHD symptoms. Numerous studies have shown that oppositional defiant disorder (ODD), conduct disorders and mood disorders dominate the comorbidities with ADHD [3].

This significant comorbidity can be explained by a heterotypic continuum, whereby the same genetic vulnerability can lead to tangled phenotypic manifestations in different individuals and at different stages of development, thus explaining a diagnostic eclipse [4] by under-diagnosing the various comorbidities through the screen effect of ADHD.

ISSUES AND OBJECTIVES

In our child and adolescent psychiatry consultations, we regularly see patients referred for psychomotor instability [5]. A term used by family, teachers and parents to describe a child's agitated or disruptive behavior.

The aim of this article is to study the issue of diagnostic evaluation of psychiatric comorbidity with ADHD in school-age children, through a clinical case, for better multidisciplinary management.

To preserve medical confidentiality, we use a fictitious first name "Youssef" to refer to the patient. This first name is chosen to protect the patient's real identity and confidentiality.

OBSERVATION

Youssef is a 10-year-old child who came to the child psychiatry department with both his parents. He had been referred by his referring physician because of difficulties in staying at home, irritability, insomnia on falling asleep, increased psychomotor instability and dropping out of school.

During the first consultation, Youssef presents a clastic crisis in the waiting room with blows and insults against his parents. After a period of individual interviewing, Youssef no longer displays hetero-aggression and finally agrees to return to see his parents, without being violent. An exchange is possible with him, and he describes irritability, major difficulties with concentration, inattention and memorization, and expresses low self-esteem.

We agree to further close consultations for diagnostic and therapeutic evaluation.

In terms of family history, Youssef is the eldest of three siblings: he has a sister (aged 8) and a brother aged 6. He was diagnosed with myoclonic epilepsy and treated with Sodium Valproate, which was stopped at the age of 2. The father's first cousin also had epilepsy of undetermined origin epilepsy of undetermined origin.

Youssef was born of a planned and desired pregnancy, marked by a threat of premature delivery. Delivery was at 36 weeks' amenorrhea, by vaginal delivery, with good adaptation to extrauterine life.

Birth weight 2500 g, head circumference 33 cm, Apgar 10/10 at 1 minute and 10/10 at 5 minutes.

Psychomotor development was normal. Youssef was exclusively breastfed for 6 months, then formula-fed. There was no evidence of post-partum depression, and early interactions were of good quality.

His mother went back to work when Youssef was 6 months old and entrusted him to a childminder with reported separation anxiety. After that, schooling went smoothly. Acquisitions include babbling at 4 months, first words at 16 months, first sentences at 3/4 years, sitting up at 5 months, crawling at 9 months and walking at 14 months. Daytime and nighttime cleanliness acquired at two and a half years. Good nutritional balance. Sleep is described as poorly restorative, with early morning awakenings.

As for the history of the disorder, the mother describes Youssef as a very calm baby, who babbled, didn't cry and had few reactions to his environment. The first difficulties were observed when Youssef was 3 years old. Signs of parental concern included delayed language acquisition, difficulties in social interaction (entering into and maintaining a relationship).

Youssef always had only two or three friends with whom he got on with difficulty, behavioral problems, and an overall mismatch with his peers, without really being able to explain the cause.

In kindergarten section, attitude and behavioral problems were spotted from the outset, with a child who

was oppositional and didn't listen to instructions. The mother describes numerous relationship problems with his peers, younger brother and parents. He often gets into physical confrontations. He is described as having attentional difficulties, a delay in following instructions and a strong need for movement.

These difficulties will continue until second primary class, and learning takes a great deal of effort. The diagnosis of attention deficit hyperactivity disorder [6] is made by his referring physician, and psychostimulant treatment (Methylphenidate) [7] was initiated, with speech and psychomotor therapy were provided.

One year later, treatment was discontinued due to lack of efficacy and no difference between treatment and no-treatment periods.

The referring physician finally referred Youssef to the child psychiatry department, given the increase in clastic seizures. During consultations in the child psychiatry department, a thorough clinical examination is carried out, as well as a paraclinical work-up including electroencephalogram, cerebral magnetic resonance imaging and a blood test, all of which are returned without any pathological features.

During child psychiatric interviews, Youssef is calm and committed to the follow-up project. He has a good rapport and a coherent, focused approach, but is easily distracted in the clinical interview room.

Thymic features include irritability, moodiness without suicidal ideation, insomnia, low self-esteem and guilt. Youssef is withdrawn and reports being bullied at school. On the behavioral front, parents report several clastic outbursts at home in a context of intolerance to frustration.

At the psychometric assessment, Youssef scored on the Weschler Intelligence Scale for Children V (WISC V) [8] the following results: 89 in the Verbal Comprehension Index (VCI), 100 in the Visuo-Spatial Index (VSI), 109 in the Fluid Reasoning Index (FRI), 82 in the Working Memory Index (WM), 92 in the Processing Speed Index (PSI), either a homogeneous Intelligence Quotient (IQ) with good abilities.

At the Test of Everyday Attention for Children (TEA-Ch) [9], Youssef shows an attention deficit associated with marked executive weakness.

At the speech therapy assessment, it is sometimes necessary to remind Youssef of the framework because he can impulsively leave the office, has difficulty concentrating and refuses certain tests such as handwritten dictation and reading texts. At times, Youssef may devalue himself. The various tests carried

out show a developmental language disorder, mainly on the expressive side. Graphism is very costly due to qualitative dysgraphia. A developmental disorder of oral language and a specific learning disorder with a deficit in reading, but above all in spelling.

In terms of individual development, there have been a number of clastic outbursts, involving blows and insults. Youssef regrets these gestures, but explains that he sees no alternative to violence, and manages to say that there are positive points to the follow-up. He has adapted well to the treatment, with fewer clastic outbursts and better emotional management. He also expresses his suffering very quickly.

On the family front, Youssef's parents have regular family meetings, communicate actively and are involved in his care. They report that our patient is increasingly able to interact with others. They note fewer bouts of frustration intolerance and a significant reduction in aggressive impulses.

Following an assessment of our patient, we set up a multidisciplinary program tailored to Youssef's needs, including regular child psychiatric follow-up, speech therapy, psychomotor therapy and psychotherapy.

School adjustments seem necessary as a means of compensating for the disorders identified, while maintaining the pharmacological treatment instituted during the child psychiatric followup: « Methylphenidate, Risperidone, Hydroxyzine and Melatonin [10] ».

In conclusion, Youssef is a 10-year-old child referred to the child psychiatry department because of his increasing psychomotor instability, behavioral problems and school dropout, with the presence of thymic elements. The child psychiatric evaluation led to the diagnosis of a complex neurodevelopmental disorder, "ADHD comorbid with a characterized depressive episode of moderate severity", requiring multidisciplinary non-pharmacological and pharmacological treatment.

DISCUSSION

An obvious obstacle a clinician encounters in making an accurate and appropriate diagnosis is the existence of overlapping diagnostic criteria between disorders. Diagnostic error in patients with overlapping symptoms frequently occurs as a result of diagnostic eclipse also known as OVERSHADOWING [11]. The latter occurs when a clinician fails to take into account the different psychopathological components in an individual, focusing instead on more important or obvious problems or characteristics of that individual.

Indeed, if a person with ADHD exhibits symptoms of depression, anxiety or a behavioral disorder, a professional might simply attribute these behaviors to ADHD, rather than assessing the person for a comorbid psychiatric diagnosis.

Our clinical illustration perfectly explains the overshadowing effect exerted by ADHD and the eclipse of other comorbid diagnoses (depressive disorder [12], specific learning disorders) in our patient, which explains the importance of diagnostic evaluation. This is in line with various works in the literature [13].

According to CADDRA (Canadian ADHD Resource Alliance) [14] most ADHD patients also have associated comorbidities that can complicate the clinical picture. These comorbid disorders often need to be treated simultaneously. Indeed, 50-90% of children with ADHD have at least one comorbidity, and around half of ADHD children have at least two comorbidities. Many children with ADHD have specific learning disabilities. In school-age children, symptoms of anxiety and motor disorders may be present, and mood disorders are present mostly in early adolescence [15].

CONCLUSION

The case presented here highlights the diagnostic complexity and possible shielding effect of ADHD. The presence of this disorder has led to a diagnostic overshadowing of other comorbid disorders, hence the importance of child psychiatric expertise and multidisciplinary assessment including the affective and family dimension.

Indeed, the "OVERSHADOWING" of mental health disorders often leads to inappropriate management of these disorders. This prolongs the suffering of people with ADHD associated with other psychiatric disorders.

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