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Late Diagnosis of Inattentive ADHD in a School-Aged Child Without Hyperactivity: A Comprehensive Therapeutic Approach

Diagnóstico tardío de TDAH en un escolar sin hiperactividad: abordaje terapéutico integral

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ABSTRACT

Introduction: attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental condition of multifactorial origin, with a strong genetic basis, typically manifesting in childhood and characterized by high clinical heterogeneity. Its impact spans academic, familial, and social domains, and it often coexists with other disorders, complicating detection and management.
Objective: to describe a clinical case of late-diagnosed ADHD.
Case Presentation: an 11-year-old student, with no history of motor hyperactivity or psychomotor delays, showed adequate early academic performance and lived in a stable family environment. From age 9, attentional difficulties, disorganization, and school-related anxiety emerged, intensifying with increased academic demands. Diagnosis was confirmed through clinical interviews and standardized tools (Conners, BASC-3, DSM-5, Stroop, CPT-3), identifying inattentive-type ADHD. A multimodal treatment was implemented, including cognitive-behavioral therapy (TIMCO model), a gamified educational app, and atomoxetine, resulting in improved task organization, academic performance, and emotional regulation.
Conclusions: the late diagnosis of ADHD may be influenced by the absence of motor hyperactivity and a structured environment that masks symptoms. Personalized intervention led to significant functional improvement, highlighting the value of integrative therapeutic strategies tailored to the clinical profile and context.

Keywords: ADHD; Neurodevelopment; Late Diagnosis; Inattention; School Anxiety; Cognitive-Behavioral Therapy; Atomoxetine; Multimodal Intervention.

RESUMEN

Introducción: el trastorno por déficit de atención e hiperactividad (TDAH) es una condición del neurodesarrollo de origen multifactorial, con fuerte base genética, que se manifiesta en la infancia y presenta alta heterogeneidad clínica. Su impacto se extiende al ámbito académico, familiar y social, y suele coexistir con otros trastornos, lo que complica su detección y manejo.
Objetivo: describir un caso clínico con diagnóstico de TDAH de forma tardía.
Presentación del caso: escolar de 11 años, sin antecedentes de hiperactividad motora ni alteraciones psicomotoras, con buen rendimiento inicial y entorno familiar estable. A partir de los 9 años se evidencian dificultades atencionales, desorganización y ansiedad escolar, intensificadas con el aumento de exigencias académicas. El diagnóstico se estableció mediante entrevista clínica y aplicación de instrumentos estandarizados (Conners, BASC-3, DSM-5, Stroop, CPT-3), confirmando TDAH subtipo inatento. Se implementó tratamiento multimodal con terapia cognitivo-conductual (modelo TIMCO), aplicación digital gamificada y atomoxetina, logrando mejoras en organización, rendimiento académico y regulación emocional.
Conclusiones: el diagnóstico tardío del TDAH puede estar influido por la ausencia de hiperactividad motora y un entorno estructurado que disimula los síntomas. La intervención personalizada permite una mejora funcional significativa, evidenciando la utilidad de enfoques terapéuticos integrales adaptados al perfil clínico y contexto del paciente.

Palabras clave: TDAH; Neurodesarrollo; Diagnóstico Tardío; Inatención; Ansiedad Escolar; Terapia Cognitivo-Conductual; Atomoxetina; Intervención Multimodal.

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INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder of biological origin that manifests in childhood, usually before the age of seven. It is characterized by the presence of three main symptoms: inattention, impulsivity, and hyperactivity.[1,2] It is an organic disorder of multifactorial origin, but eminently genetic.[3]

The American Psychiatric Association's Manual distinguishes between three types of ADHD: predominantly inattentive, predominantly hyperactive-impulsive, and combined presentation.[4]

A question of considerable interest is the frequency with which these primary symptoms of the disorder occur in conjunction with others that can be considered secondary. This issue may be of great importance in explaining why the group of hyperactive children is such a heterogeneous sample.[5]

Most experts believe that the heterogeneity of ADHD suggests complex causal pathways, with genes and environment interacting in multiple ways to produce the outcome. The general opinion is that, although the disorder is 70-80 % heritable, its expression and evolution cannot be understood without considering the experiences that occur in social systems, particularly in the family, which serves as the primary context of socialization.[6]

Its presence can have a significant impact on the child both academically and in their personal and family relationships.[3] The defining symptoms of ADHD include impulsivity, hyperactivity, and inattention, which make it difficult for parents to educate their children and often cause them to experience feelings of frustration, guilt, stress, low self-esteem, and dissatisfaction with their parental role.[6]

It is estimated that between 3 and 5 % of school-age children have ADHD, although global statistics range from 8-14 % depending on the age group.[6]

This disorder rarely occurs alone, being highly comorbid with specific learning disorders and behavioral disorders, followed by mood disorders such as anxiety and depression, and, with a lower prevalence, communication disorders, autism spectrum disorder, and epilepsy.[7]

Factors related to the social microsystems, family, and school where the child develops have the most significant influence on both the course of ADHD and the development of problems associated with the disorder. Suppose the family, school, and peer group are aware of the difficulties faced by children with ADHD and offer them sufficient opportunities to develop self-regulation skills. In that case, they will be facilitating the positive evolution of the disorder.[4]

In light of the above, a clinical case was presented to describe a case of late diagnosis of ADHD.

CASE REPORT

The patient is an 11-year-old schoolboy in the fifth grade of primary school with a family history of generalized anxiety disorder on his father's side and a mother with no psychiatric history but a history of chronic migraine. Personal medical history includes an expected delivery without perinatal complications, normal psychomotor development until age 6, no previous hospitalizations, and no chronic illnesses. He lives with both parents and a younger sister in a stable family environment, although with high academic demands, and attends a private school with a traditional approach. At the age of 9, coinciding with the start of a new school year, he reported difficulty following instructions, frequent forgetfulness, low tolerance for frustration, and disorganization in his schoolwork. Over the next two years, the symptoms intensified. The child performed poorly in mathematics and language arts, had difficulty maintaining attention in class, exhibited verbal impulsivity, and experienced episodes of anticipatory anxiety before evaluations. At age 11, following multiple school reports and a psycho-educational evaluation, he was referred to a neuropediatric consultation, where a structured interview was conducted with his parents and teacher, observing: difficulty maintaining sustained attention, rapid changes of topic, and verbal impulsivity.

The following instruments were applied:

- Conners Rating Scale (parent and teacher version): high scores on inattention and disorganization.
- DSM-5 Criteria Checklist: meets criteria for inattentive subtype ADHD.
- Behavior Assessment System for Children (BASC-3): impairments in attention, school anxiety, and organizational skills.
- Stroop Test and CPT-3 (Continuous Performance Test): poor performance on inhibition and sustained attention tasks.

The diagnosis was therefore made late, at age 11, in a child with no history of motor hyperactivity, good initial performance, and no psychomotor development disorders, which made early detection difficult.

Cognitive-behavioral therapy adapted to the TIMCO (Training in Self-Awareness and Control) model was applied, focusing on emotional self-regulation and task planning. A digital educational application with gamified positive reinforcement for school tasks (a model based on positive psychology) was used. This was supported by pharmacological therapy with atomoxetine in progressive doses, chosen for its non-stimulant profile and good tolerance in cases with comorbid anxiety.

The patient demonstrated significant improvement in task organization, a reduction in forgetfulness, and increased grades in language and English (+1,5 points on average). Additionally, there were decreased episodes of school anxiety, increased class participation, and improved peer relationships.

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DISCUSSION

Based on the analysis of the clinical case presented, several elements can be identified that allow us to reflect on the diagnostic and therapeutic complexity of ADHD, especially in cases of late onset and without apparent motor hyperactivity.

ADHD has a significant genetic basis, with common variants that modulate risk and rarer variants that directly cause it. Thanks to techniques such as CGH arrays and mass sequencing, genetic alterations have been identified in up to 17 % of cases, which allows for improved diagnosis, treatment guidance, and family genetic counseling.[8]

Despite its hereditary predominance, an association with environmental factors has been demonstrated, which may be prenatal (alcohol, tobacco, or drug use), perinatal (prematurity, low birth weight, hypoxia due to complications during delivery, among others), or postnatal (frequent family conflicts or inadequate nutrition).[7]

In this sense, the case presented illustrates how a structured family environment and adequate initial academic performance can mask symptoms of inattention, making early detection difficult. This situation highlights the importance of ongoing clinical monitoring, particularly in high-demand school contexts, where symptoms may become more pronounced in response to increased cognitive demands.

ADHD is not only associated with problems that disrupt the daily lives of children who suffer from it, but it can also be associated with some more serious mental disorders.[5] Although traditionally considered a childhood diagnosis, numerous longitudinal studies confirm its continuity beyond adolescence. It should be noted that ADHD in adults can present different symptoms, with a predominance of disorganization, impulsivity, and difficulties in emotional self-regulation, which hurt work, academic, and social life.[9]

As a result, parents of children with ADHD consider themselves less competent in their role as parents and rate their quality of life as unsatisfactory.[6,10] This is the main reason why the family should be treated as a unit, since the active participation of parents and the school in monitoring the child is essential, not only as logistical support, but also as agents of change in everyday dynamics.

Like any chronic condition, the management of ADHD requires a comprehensive approach, in which the responsible physician coordinates all actions aimed at improving the patient's quality of life. Care must be coordinated by the primary care pediatrician, neuropsychologist, and school therapists, and the expectations and goals of the child/adolescent and their parents must be integrated.[3]

The treatment traditionally accepted as most effective for ADHD has been termed multimodal based on the conclusions of a classic study (MTA) that compared the usefulness of pharmacological treatment with methylphenidate (in different regimens) with the use of cognitive behavioral therapy and the combination of both. The results clearly favored the combined treatment option.[3]

Drugs authorized for the treatment of ADHD are divided into two groups based on the main profile of their mechanism of action: stimulants and non-stimulants.[3]

In terms of patient treatment, a multimodal intervention was chosen that integrated cognitive behavioral therapy adapted to the TIMCO model, the use of digital tools with positive reinforcement, and pharmacotherapy with atomoxetine. This therapeutic choice was consistent with the patient's profile, given that atomoxetine, not being a stimulant, is better tolerated in cases with comorbid anxiety. The incorporation of gamified strategies for schoolwork represents an interesting innovation, as it promotes intrinsic motivation and self-regulation without relying exclusively on external contingencies.

Efforts to standardize treatment are emerging, such as those of Leite Gomez[11], who validated an educational booklet aimed at parents and caregivers of children with ADHD, consisting of 13 topics and 32 pages. The results showed high rates of content validity (0,89), appearance (0,91), and acceptance by the target audience (0,99), as well as satisfactory readability (54 %). It was concluded that the material is explicit, relevant, and helpful in guiding home care and is considered suitable for application in nursing practice.

Therapies referred to as alternative or complementary are not based on scientific evidence and are not only ineffective but can also be counterproductive, as they can generate undesirable effects.[3]

CONCLUSIONS

Late diagnosis of ADHD may be influenced by the absence of motor hyperactivity and a structured environment that masks symptoms. Personalized intervention enables significant functional improvement, demonstrating the effectiveness of comprehensive therapeutic approaches tailored to the patient's clinical profile and context.

REFERENCES

1. Vargas Tenorio AS. Presentación de caso clínico: tratamiento de paciente con TDAH mediante el uso de Klammt en la Clínica Universitaria de Atención a la Salud Zaragoza. 2025.

2. Teresa Isabel Costa De Oliveira Martins Matos TICDOMM, González-Contreras AI, Alonso-Rodríguez I, Martínez-Muciano MC. Inclusive school and the impact of programs promoting socio-emotional competencies based on mindfulness in ADHD in primary school students. Salud Cienc Tecnol. 2024;4:1170. https://doi.org/10.56294/saludcyt20241170.

3. Soteras CE, Fernández MAF, Fenoy CT, del Valle FM, Cervera GR, Casas ISM. Trastorno por déficit de atención e

hiperactividad (TDAH). Protoc Diagn Ter Pediatr. 2022;1:85–92.

4. Prada Hernández M. Estudio de caso único de un paciente de 12 años diagnosticado con un trastorno de atención con hiperactividad, presentación hiperactiva-impulsiva. 2016.

5. Presentación MJ, Siegenthaler R. Problemática asociada al TDAH subtipo combinado en una muestra escolar. J Study Educ Dev. 2005;28:261–75. https://doi.org/10.1174/0210370054740232.

6. Presentación MJ, Pinto V, Meliá A, Miranda A. Efectos sobre el contexto familiar de una intervención psicosocial compleja en niños con TDAH. Escr Psicol. 2009;2:18–26.

7. Laborda Pretel P. Intervención neuropsicológica en atención y funciones ejecutivas en TDAH: caso clínico. 2022.

8. López-Martín S, Albert J, Calleja-Pérez B, Fernández-Mayoralas DM, Fernández-Perrone AL, Jiménez De Domingo A, et al. Genetics of ADHD in clinical practice. Medicina (B Aires). 2024;84(Suppl 1):26–30.

9. Pérez-Hernández S, Macias-Paz IU, Cruz-Rosas A. Attention deficit/hyperactivity disorder: persistence in adulthood. Vertex. 2024;35:67–73. https://doi.org/10.53680/vertex.v35i165.661.

10. Garcés Garcés NN, Esteves Fajardo ZI, Santander Villao ML, Mejía Caguana DR, Quito Esteves AC. Relationships between mental well-being and academic performance in university students: a systematic review. Salud Cienc Tecnol - Ser Conf. 2024;3:972. https://doi.org/10.56294/sctconf2024972.

11. Leite Gomes da Silva KV, de Almeida Rebouças CB, Cruz J, de Almeida PC. Construction and validation of a booklet for parents/caregivers of children with attention deficit and hyperactivity disorder. Rev Cuid. 2023;14:e09. https://doi.org/10.15649/cuidarte.3037.

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