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ADHD AND COMORBID DISORDERS

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Attention deficit and hyperactivity disorder (ADHD) is a neurodevelopmental disorder of childhood, affecting various aspects of life and causing functional problems. Although adults may grow out of some symptoms, in general the condition continues affecting people into adulthood. ADHD is characterized by age inappropriate levels of inattention, hyperactivity, and impulsivity. Children often have difficulty in sustaining attention, due to that frequent mistakes, forgetfulness, impulsivity, and hyperactivity. Adults with ADHD may experience problems in organizing tasks, maintaining focus, and time management. Inattention, hyperactivity, and impulsivity are main features of ADHD, but there are various symptoms. According to DSM-5 there are nine inattention symptoms and nine hyperactivity/impulsivity symptoms. These symptoms make various combinations and that emphasizes heterogeneity of ADHD. There are three main types of ADHD according to DSM-5 based on the predominant symptoms: inattentive type, hyperactive-impulsive type and combined type. Individuals with inattentive type primarily struggle with attention and organization. They have problems with sustaining attention, completing tasks, and organizing activities. Individuals with hyperactive-impulsive type mainly struggle with controlling their hyperactivity and impulsivity. Children fidget, talk too much, interrupt others, can't wait for their turns and act without thinking. Individuals with combined type of ADHD have difficulties with inattention and hyperactivity/impulsivity [1]. According to different sources the prevalence of ADHD is around 5-10% among children and

adolescents globally. It is important to note that ADHD often persists into adulthood. The prevalence of ADHD among adults is approximately 2-5% according to different sources [6,7]. It is more prevalent among boys than girls. But that could be because ADHD in girls is underdiagnosed [4]. It is also important to note that different countries might have different prevalence rates. That could be because of the diagnostic criteria being used, knowledge of families about ADHD, etc. Early diagnosis, timely intervention, and support can significantly improve the outcomes and daily functioning for children and adolescents with this disorder.

ADHD can significantly affect children and adolescents' life and interfere with their daily activities. They might have issues with academic performance, social relationships, emotional regulation, etc. ADHD can interfere with school performance and academic success because of the difficulties with concentration, time management and following instructions. It can impact social interactions. Because children and adolescents with ADHD may struggle with listening, taking their turns, and controlling impulsive behavior. This in turn can lead to problems with social relationships with their peers. Also individuals with ADHD may experience emotional dysregulation that would lead to mood swings, frustration, etc in various situations. Diagnosing ADHD and addressing it accordingly is important, because it impacts daily functioning in academic, social or work life [7,8,9]. One of the difficulties in diagnostics of ADHD is that it often occurs together with other comorbid disorders. Comorbidity means having two or more

medical conditions or disorders in an individual at the same time. The term "comorbidity" is used in medicine to describe instances where a specific clinical condition coexists in a patient simultaneously with the ongoing course of their underlying disease. ADHD rarely occurs in isolation. In fact up to 80% of individuals with ADHD have at least one comorbid disorder [14]. Children and adolescents with ADHD often experience difficulties not typical to ADHD due to the presence of comorbid disorders. These may include disorders such as depression and bipolar disorder, conduct disorder, anxiety disorders, substance use disorders, and learning disabilities. The clinical picture of ADHD may include symptoms similar to some aspects of these disorders as a result of main symptoms. This can complicate the clinical picture and pose certain challenges in diagnosis and treatment. Understanding the relationships between ADHD and comorbid disorders is fundamental for accurate diagnosis and developing comprehensive evidence based interventions. As it is the case with other disorders, the effective management of ADHD requires a holistic approach. Addressing only the core symptoms of ADHD is not enough, other challenges associated with comorbid disorders should also be evaluated and taken into account. This can improve the quality of life for children and adolescents with ADHD.

There are certain specific challenges in diagnosing ADHD when there are some comorbid disorders present. Many comorbid disorders and ADHD share similar symptoms. When the symptoms of ADHD overlap with those of comorbid disorders, it becomes more difficult to distinguish between them. Other mental conditions when they are present with ADHD lead to a complex clinical picture. They may mask ADHD symptoms making it difficult to identify the primary cause. For instance, if the child has both ADHD and anxiety, the medical professional, psychologist, or even parents may attribute the symptoms inattentiveness to worry, rather than attention deficit. Not having the accurate diagnosis may delay appropriate intervention. A comprehensive assessment and evaluation that considers multiple sources of information is essential.

Comorbid disorders could also cause challenges in treatment interventions. For example, if the child has conduct disorder and ADHD, both conditions need to be targeted. Or addressing conduct disorder first could help with the treatment of ADHD as well. The presence of comorbid disorders can make the functional impairments associated with ADHD more pronounced. Academic or social functioning may be more severely affected. This would require a multidimensional treatment plan. Recognizing and addressing comorbidities is essential for effective management of ADHD [3].

Common Comorbid Disorders Associated with ADHD:

Anxiety Disorders: There is a well-documented connection between ADHD and anxiety disorders. The prevalence of ADHD and anxiety disorders comorbidity is about 25% [13]. The symptoms of impulsivity and inattention can exacerbate anxiety symptoms. At the same time anxiety may cause problems with concentration and attention. Children and adolescents with ADHD often experience high levels of stress because of the symptoms associated with attention, impulsivity, and hyperactivity. They always have to try to meet certain expectations in their behavior or academic performance. And this can make their anxiety worse. Anxiety may lead to increased distractibility, restlessness, and difficulty focusing in individuals with ADHD. On the other hand, the impulsivity and inattention characteristic of ADHD can heighten the stress levels of an individual, contributing to the development or worsening of anxiety symptoms. The coexistence of these disorders alters the clinical manifestation of each condition and influences the prognosis of affected individuals. Effective treatment typically involves a combination of pharmacological interventions and behavioral therapy. Only CBT would not be enough for these patients [13].

Depression: There is a high prevalence of depression among children and adolescents with ADHD. According to different sources between 30 and 50 percent of individuals with ADHD also have coexisting depression. They

have problems with social relationships, difficulties academic performance and these can contribute to feelings of inadequacy and frustration. This in turn may lead to depressive symptoms. On the other hand the low mood and lack of motivation associated with depression can make ADHD symptoms worse. Diagnosing depression in individuals with ADHD can be challenging. Because some of the symptoms overlap. For example, patients with depression could have symptoms such as lack of motivation, or inattention. At the same time these symptoms could be due to ADHD. Since both disorders share the same symptoms, a differential diagnostics approach is important here. A comprehensive approach that addresses both conditions is recommended. ADHD is recognized as a highly heritable disorder, with both genetic and environmental factors contributing to its etiology. However, in the case of depression as a comorbid disorder, environmental factors are seen to play a more prominent role [15].

Specific Learning Disorder: Children and adolescents with ADHD have problems with academic performance due to inattention and concentration problems, also problems with impulse control and organization, which makes the learning process a struggle. Learning disorders, including dyslexia and dyscalculia, could co-occur with ADHD. The overlap of symptoms between ADHD and learning disabilities can pose challenges in distinguishing between the two. Addressing learning difficulties arising from ADHD and specific learning disorders requires a distinct approach. What distinguishes ADHD from a learning disorder is that, a specific learning disorder creates challenges in acquiring particular skills, such as reading or math skills. In contrast, ADHD affects more overarching skills and executive functions, including the capacity to concentrate, regulate emotions, and control impulsive behavior. Learning difficulties in children with ADHD stem from challenges with executive functions like working memory and attention control, etc. Therefore, comprehensive differential diagnostics is crucial in this context as well [2]. The prevalence of ADHD and learning

disorders comorbidity is about 45 percent [16]. Attention difficulties, impulsivity, and hyperactivity can impede the efficacy of learning interventions. Children with ADHD often struggle to concentrate on quiet activities, particularly when they perceive themselves as less proficient in those areas. So having specific learning disorder makes it more difficult for them to participate in activities that they are not good at [17].

Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD): Symptoms such as impulsivity and hyperactivity, problems with social relationships, academic performance in children and adolescents with ADHD can lead to aggressive behavior. On the other hand these children can have ODD and CD as comorbid disorders. Again, as it is the case with other comorbid disorders, thorough differential diagnostics is essential to understand what's the main cause of the problem and develop appropriate intervention method. Having ODD or CD alongside with ADHD can make the treatment process more difficult. ODD is highly prevalent among individuals with ADHD. According to different sources the prevalence of ODD in individuals diagnosed with ADHD is about 60%. Those with both ADHD and ODD exhibit a significantly poorer prognosis compared to individuals with either ADHD or ODD alone. Identifying risk factors for comorbid ADHD and ODD is crucial for the development of early preventive interventions. Adverse life events and parental ADHD are among the risk factors for ADHD and ODD occurring together. Considering these risk factors, emphasizing the necessity for parent-focused interventions could play a crucial role in prevention of comorbid ADHD and ODD [18]. Diagnosing both conditions at an early stage is crucial, as untreated ODD may impede the effective treatment of ADHD. Addressing behavioral issues becomes particularly important when children are grappling with both problems, and it is essential to tackle these behavioral issues before addressing other symptoms associated with ADHD.

Autism Spectrum Disorder: The interplay between ADHD and ASD is another area of interest. Children with early ADHD labels

sometimes have undiagnosed ASD. According to different sources 30-65% of children with ADHD have some symptoms of ASD [12]. This highlights the need for thorough assessment and diagnostics and a clear understanding of overlapping symptoms. Usually, children who have both comorbid disorders get ASD diagnosis later than children who have only ASD. Previous versions of DSM did not allow the simultaneous diagnosis of both disorders. But according to current DSM-5 revisions of diagnostic criteria for ADHD and ASD, these disorders can be diagnosed simultaneously. People with ASD may also display difficulties in attention. However, research suggests that attention deficits in these individuals stem from challenges related to actively engaging in attention, whereas individuals with ADHD struggle with distractibility and maintaining focus. Individuals with high functioning ASD may have attention impairments that are not observed among other ASD patients [5,10]. Several studies suggest that comorbidity of ADHD and ASD can be diagnosed by evaluating executive functions [11]. In cases of comorbidity of ADHD and ASD, the primary concern is often delayed diagnosis of ASD rather than ADHD. This delay may result in a lack of timely intervention and necessary treatments for ASD.

Substance Use Disorders: One of the other common comorbid disorders for ADHD is Substance Use Disorders (SUD). ADHD is identified as a potential risk factor for early-onset SUD. Individuals with ADHD who have not undergone treatment are at an elevated risk of developing SUD later in life. Treating ADHD symptoms in childhood or adolescence with stimulant medications may decrease the risk of developing SUD in later years. Comorbidity between ADHD, particularly the combined type, and SUD is common and leads to increased severity in both disorders. The substances most commonly used by individuals with ADHD include stimulants, cannabinoids, alcohol, and opiates [19]. The prevalence of SUD in individuals diagnosed with ADHD is between 33% and 44%. Studies reveal that individuals with ADHD face a 5 to 10 times higher likelihood of developing alcohol addiction compared to those without ADHD.

About 25% of adults receiving treatment for SUD also are diagnosed with ADHD [20].

Treatment Considerations. Evidence-Based Treatment Options: When treating children and adolescents with ADHD and comorbid disorders, a comprehensive approach is crucial. It is essential to remember that main focus is on addressing the needs of the child, not just the specific disorder. Therefore, when designing intervention strategies, all the problems the child has should be taken into account. Recognizing the unique needs of children and adolescents with both ADHD and learning disabilities is essential. In situations where there is comorbidity between ADHD and specific learning disorders, it is essential to integrate psychotherapeutic methods with interventions tailored for specific learning disorders [17]. Collaborative efforts between families, school and mental health professionals can help to address both problems.

Pharmacological Interventions: Careful consideration is necessary with pharmacological treatment, as some medications may exacerbate symptoms of the other. The presence of comorbid disorders requires a careful selection of medications to address both ADHD and the comorbid disorder.

Behavioral Therapies: Behavioral interventions, such as cognitive-behavioral therapy (CBT), can be effective in managing symptoms of ADHD and comorbid disorders. For example, it can help address both ADHD and anxiety symptoms or depression. These therapies focus on improving executive functioning, self-regulation, and coping skills. Often when individuals with ADHD receive CBT together with medication the long term result is achieved.

Educational Support: Tailored educational interventions, such as accommodations and modifications, can help address challenges caused by both ADHD and specific learning disorders. Teachers can implement strategies such as modified assignments, extended time on tests, and personalized learning plans to address academic challenges associated with ADHD and comorbid disorders.

Parental Training: Educating parents about ADHD and comorbid disorders is important.

Parent can benefit from training programs that teach them to manage behavioral problems, improve communication, and create a supportive environment for children and adolescents.

References

1. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders. – 5th Edition. - Arlington, VA, American Psychiatric Association - 2013.
2. DuPaul G.J., Gormley M.J., Laracy S.D. Comorbidity of LD and ADHD: Implications of DSM-5 for assessment and treatment // *Journal of Learning Disabilities*, - 2013 - 46, - p. 43.
3. Gnanavel S. Attention deficit hyperactivity disorder and comorbidity: A review of literature / Gnanavel S., Sharma P., Kaushal P. [et al.] // *World Journal of Clinical Cases*, - 2019. Sep; 6;7(17). – p. 2420-2426.
4. Seidman L.J., Impact of gender and age on executive functioning: do girls and boys with and without attention deficit hyperactivity disorder differ neuropsychologically in preteen and teenage years? / Seidman L.J., Biederman J., Monuteaux M.C. [et al.] // *Development Neuropsychology*, - 2005. 27(1). – p. 79-105.
5. Ramtekkar, U.P., DSM-5 Changes in Attention Deficit Hyperactivity Disorder and Autism Spectrum Disorder: Implications for Comorbid Sleep Issues // *Children (Basel, Switzerland)*, - 2017. 4(8). – p. 62.
6. Davidovitch, M. Challenges in defining the rates of ADHD diagnosis and treatment: trends over the last decade / Davidovitch, M., Koren, G., Fund, N. [et al.] // *BMC Pediatrics* – 2017. 17. – p. 218.
7. Hamed A.M., Kauer A.J., Stevens H.E. Why the Diagnosis of Attention Deficit Hyperactivity Disorder Matters // *Front Psychiatry*, - 2015. Nov 26;6. - p. 168.
8. Russel A.B. Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment / Russel A. Barkley. - The Guilford Press, - 2018. - 898 pages
9. Russel A. Barkley, Improving Clinical Diagnosis Using the Executive Functioning-Self-Regulation Theory of ADHD // *The ADHD Report* – 2022. 30:1, - p. 1-9
10. Hours C., Recasens C., Baleyte J.M. ASD and ADHD Comorbidity: What Are We Talking About? // *Frontiers in psychiatry*, - 2022. 13, 837424.
11. Gargaro B.A. Autism and ADHD: how far have we come in the comorbidity debate? / Gargaro B.A., Rinehart N.J., Bradshaw J.L. [et al.] // *Neuroscience and biobehavioral reviews*, - 2011. 35(5). – p. 1081–1088.
12. Sokolova E. A Causal and Mediation Analysis of the Comorbidity Between Attention Deficit Hyperactivity Disorder (ADHD) and Autism Spectrum Disorder (ASD) / Sokolova E., Oerlemans A.M., Rommelse N.N. [et al.] // *Journal of autism and developmental disorders*, - 2017. 47(6). – p. 1595–1604.
13. D'Agati E., Curatolo P., Mazzone L. Comorbidity between ADHD and anxiety disorders across the lifespan. // *International journal of psychiatry in clinical practice*, - 2019. 23(4). – p. 238–244.
14. Katzman M.A. Adult ADHD and comorbid disorders: clinical implications of a dimensional approach / Katzman M.A., Bilkey T.S., Chokka P.R. [et al.] // *BMC Psychiatry*, - 2017. 17. – p. 302.
15. Daviss W.B., Bond J.B. Comorbid ADHD and Depression: Assessment and Treatment Strategies // *Psychiatric Times*, - 2021. Vol 33 No 9
16. DuPaul G.J., Gormley M.J., Laracy S.D. Comorbidity of LD and ADHD: implications of DSM-5 for assessment and treatment // *Journal of learning disabilities*, - 2013. 46(1). – p. 43–51.
17. Visser L. Comorbidities Between Specific Learning Disorders and Psychopathology in Elementary School Children in Germany / Visser L., Kalmar J., Linkersdörfer J. [et al.] // *Frontiers in psychiatry*, - 2020. 11. – p. 292.

18. Noordermeer S.D.S. Risk factors for comorbid oppositional defiant disorder in attention-deficit/hyperactivity disorder / Noordermeer S.D.S., Luman M., Weeda W.D. [et al.] // European child & adolescent psychiatry, - 2017. 26(10). – p. 1155–1164.
19. Barbuti M. Challenges of Treating ADHD with Comorbid Substance Use Disorder: Considerations for the Clinician / Barbuti M., Maiello M., Spera V. [et al.] // Journal of clinical medicine, - 2023. 12(9). – p. 3096.
20. Magon R, Müller U. ADHD with comorbid substance use disorder: review of treatment // Advances in Psychiatric Treatment, - 2012. 18(6). – p. 436-446.

Резюме

Камала Агаева

СДВГ и коморбидные расстройства

В статье рассматривается СДВГ и некоторые сопутствующие ей нарушения. СДВГ – это расстройство нервно-психического развития детского возраста. Диагноз основывается на критериях DSM-5. Иногда при диагностике возникает ряд трудностей. Один из них – сопутствующие нарушения. Иногда симптомы этих расстройств совпадают с симптомами СДВГ. Или они маскируют симптомы друг друга, изменяя их. В это время несвоевременная постановка диагноза вызывает определенные трудности. Чтобы устранить проблему у ребенка, важно знать причину проблемы. Один и тот же симптом, например, трудности с обучением, можно обнаружить как при конкретных нарушениях обучения, так и при СДВГ. На этом этапе следует поставить точный диагноз, чтобы знать, в каком направлении будет проводиться вмешательство. Тревожные расстройства, депрессия, нарушения обучения, поведенческие расстройства и расстройства аутистического спектра – это расстройства, сопровождающие СДВГ. В статье говорится об этих расстройствах, их особенностях при сопровождении СДВГ, важных моментах, которые следует учитывать в процессе диагностики и лечения.

Ключевые слова: СДВГ, расстройство обучения, тревожное расстройство, депрессия, расстройства поведения

Xülasə

Kəmalə Ağayeva

DƏHP və yanaşı gedən pozuntular

Məqalədə DƏHP və onunla yanaşı gedən bəzi pozuntular araşdırılır. DƏHP uşaqlığın neyroişkişaf pozuntusudur. Diaqnozu DSM-5 meyarları əsasında qoyulur. Bəzən diaqnostikada bir sıra çətinliklər meydana çıxır. Bunlardan biri də yanaşı gedən pozuntulardır. Bəzən bu pozuntuların simptomları ilə DƏHP simptomları üst-üstə düşür. Yaxud da onlar bir-birinin simptomlarını dəyişdirərək maskalayır. Bu zaman vaxtında diaqnozun qoyulmaması müəyyən çətinliklərə səbəb olur. Uşaqda olan problemin aradan götürülməsi üçün problemin nədən qaynaqlandığını bilmək vacibdir. Eyni əlamət, məsələn, öyrənmə çətinlikləri həm xüsusi öyrənmə pozuntusunda, həm də DƏHP zamanı rast gələ bilər. Bu zaman dəqiq diaqnoz qoyulmalıdır ki, müdaxilənin hansı istiqamətdə aparılacağı məlum olsun. DƏHP ilə yanaşı gedən pozuntulara təşviş pozuntuları, depressiya, öyrənmə pozuntuları, davranış pozuntuları, autizm spektrum pozuntusu aiddir. Məqalədə bu pozuntular haqqında, DƏHP ilə birgə gedən zaman onların xüsusiyyətləri haqqında, diaqnostika və müalicə prosesində nəzər yetirilməli olan vacib məqamlar haqqında danışılır.

Açar sözlər: DƏHP, öyrənmə pozuntusu, təşviş pozuntusu, depressiya, davranış pozuntuları