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Treatment of aggression in conduct disorders in children and adolescents

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Abstract

Introduction and purpose: Treatment of conduct disorders is complex, reflecting their combined etiology in organic developmental issues and improper environmental influences. Therefore therapy involves complex psychotherapeutic interventions, focusing not only on the

individual, but also on his family system, and sometimes including drug treatment. The purpose of this work is to discuss the most effective treatment strategies for children with aggressive behavior.

Material and method: The literature was reviewed in the Pubmed database, GoogleScholar, the positions of the Polish gynecological society with the use of keywords.

State of knowledge: Interventions for children and adolescents prioritize education and psychotherapy, with limited risperidone use due to side effects. Alternatives include stimulants, alpha agonists, atomoxetine, and SSRIs. The article examines aggression in CD and ODD, comorbid disorders (ADHD, CU, DBDNS), and behavioral treatments, emphasizing differential diagnosis and management.

Summary: First-line treatment involves optimizing pharmacotherapy, such as stimulants for ADHD with aggression, with risperidone as a secondary option. Further research and individualized approaches are needed to improve therapy.

Key words: Conduct disorders, aggression, treatment, SSRI

Introduction

Children's aggressive behavior is relatively stable over time and consistently represents the onset of more serious difficulties and even mental disorders. It can be presumed that only a minority of children displaying behavioral disorders receive appropriate help. This underscores the need for early recognition, proper diagnosis and appropriate therapy for aggressive behavior [1].

Conduct disorder is defined as a persistent maladaptive pattern of aggressive and rebellious behavior characterized by antisocial behavior that negatively affects a child or adolescent's development and interactions with parents and friends [2].

The literature describes two medical model-based approaches to classifying mental disorders in childhood and adolescence:

1. The classical classification of disorders published by the American Psychiatric Association in DSM-5 (APA, 2013).
2. The International Classification of Diseases developed by the World Health Organization (ICD-11) (WHO, 2018).

In the discussed classification systems, aggressive behavior does not constitute a separate group of disorders but can be indirectly categorized under Disruptive, Impulse-Control, and Conduct Disorders. A common feature of disorders in this group is difficulties with emotional and behavioral self-control, which manifest in violations of the rights of others and/or cause significant conflict with social norms or authorities. The diagnosis of an individual case should consider the religious, familial, and social values of the specific context.

The main classification categories for aggressive behavior include conduct disorder (CDD) and oppositional defiant disorder (ODD) in children and adolescents, while in adults, it is categorized as antisocial personality disorder [1].
The diagnostic criteria in ICD-11 place greater emphasis on the role of adaptive processes in the development of conduct disorders, defining them in a more flexible way compared to ICD-10. In ICD-11, symptoms of ODD are recognized as a distinct diagnostic entity, similar to DSM-5, which marks a divergence from earlier versions of ICD.

Both oppositional defiant disorder (ODD) and conduct disorder (CD) can lead to conflicts between young patients and adults or other authority figures. However, ODD symptoms are generally less severe than CD symptoms. Patients with ODD do not engage in aggressive behavior toward other people or animals, do not destroy others' property, and do not engage in theft or fraud. The primary diagnostic criteria for ODD include problems with emotional dysregulation, such as angry and irritable moods [3].
In contrast, conduct disorder (CD) involves more serious and destructive behaviors that violate the fundamental rights of others and prevailing social norms. Symptoms of CD may include aggression toward people and animals, such as bullying, threatening, or humiliating others, physical cruelty, initiating fights, stealing, forced sexual activity, and destroying property [2].

If untreated and the disorder progresses into adulthood, there is a risk of substance abuse, delinquency, engagement in antisocial behavior, low self-esteem, and other mental health issues.

This highlights the importance of treating CD, which affects personal and economic burdens (both individual and social) and involves the engagement of health, welfare, education, and criminal justice systems [3].

Materials and methods

The studies included in this review were searched in the following databases: Google Scholar, PubMed, and current recommendations. Included were studies published in English and Polish, which evaluated the effectiveness of diagnosing and treating behavioral disorders, and potential future therapeutic options. The following keywords were used to search for relevant publications: “conduct disorders”, "aggression", "treatment", "children", "adolescents", "SSRIs" . Additional studies were searched using "snowballing search techniques" and by reviewing the bibliography of articles included after an initial search of relevant repositories. To avoid bias due to data availability, unpublished articles and conference abstracts were not considered.

Description of the state of knowledge

Etiology of behavioral disorders

The etiology of behavioral disorders remains incompletely elucidated. It is believed to be determined mainly by the environment, but is also related to additional risk factors (genetic, cognitive and affective). In a significant number of cases, biological and social determinants overlap. This situation may be more common especially in communities/families of lower socioeconomic status with several generations of history of such disorders. [4]

Biological determinants

Among the biological factors considered is the role of the functioning of brain structures responsible for regulating motivational-emotional processes, including the prefrontal cortex, the upper temporal lobes, and the amygdala and striatum [2].

The following have also been linked to behavioral disorders (listed in a decreasing degree of investigation of these links):

- dysfunctions of the serotonergic system (decreased serotonin is associated with increased impulsivity and irritability).

- links between the gene for the D4 receptor (these receptors are found primarily in the limbic system) associated with behavior and expression of emotions and aggressive behavior.15

-relationship between XYY karyotype,

-point mutation in the gene controlling the production of monoamine oxidase type A (MAO-A), -high testosterone levels and higher incidence of conflict with the law.16

Conduct disorders with onset in childhood are often associated with the co-occurrence of attention deficit hyperactivity disorder and neurocognitive deficits such as inhibition deficits or weak verbal skills, leading to conflictual peer relationships due to poor emotion regulation and impulse control.

Another factor associated with the development of conduct disorders in early childhood are problems with anger dysregulation (severe anger). They are believed to be a major characteristic of oppositional defiant disorder, as well as a developmental precursor to conduct disorders with onset in early childhood. [2]

Social determinants

Studies particularly emphasize the importance of environmental factors - including, in particular, poor parental supervision and inadequate setting and enforcement of boundaries, lack of parental involvement or absence, low socioeconomic status of the family and inadequate peer companionship. On the other hand, delinquency is believed to be prevented by a high intelligence quotient, good social skills, good school performance and good relationships with at least one adult.

Biological - social confusion

Typically, children who manifest conduct disorders with early onset come from families with a long history of antisocial behavior, which additionally have an inconsistent parenting system,12 and the attitude of parents/guardians is often characterized by hostility. As a result, children do not have the opportunity to acquire proper social skills or internalize rules of appropriate behavior. In addition, they experience many failures in school functioning and in peer relationships, which secondarily becomes another risk factor for the development of antisocial behavior.

Callous-unemotional (CU)

A risk factor associated with an unfavorable course and prognosis for conduct disorders with onset in early childhood is the high severity of a trait described as callous-unemotional (CU). It signifies a lack of sensitivity to the feelings of others, a lack of guilt, and flat affect, that is, the presence of traits strongly predisposing to the development of psychopathic personality disorders.

These children experience low levels of emotional tension in response to distress signals, do not properly read emotional signals based on facial expressions, do not perceive messages signaling punishment for misbehavior, and maintain eye contact poorly. They additionally appear to socialize poorly under conditions of punishment. It turns out that violent discipline, in the case of a child with a low severity of the CU trait and at the same time a high severity of anger regulation problems, determines very severe oppositional and negative behaviors [4]. This impedes the development of proper emotion regulation skills, as well as forming an increased vigilance to stimuli that inform of threats from others, leading to the evolution of a defensively aggressive and conflictual style of interpersonal relations.

In contrast, a protective factor against the development of the CU trait, leading to the development of higher levels of empathy, is the environmental factor - maternal emotionality and alertness to the messages sent by the child. Warmth and involvement in the parent's relationship are, in the case of aggressive children with the CU trait, protective factors against the development of severe conduct disorders [5].

Diagnostic classifications - behavioral assessment scales

Accurate assessment of the mental state of children and adolescents is always a challenge even for an experienced psychiatrist. Whenever possible, the interview is conducted with parents and children - together and separately. Behavioral assessment scales can be helpful in determining the severity of the situation. This work does not present a single best classification - each clinician should choose the one that is most useful to him or her and appropriate for a given patient. Using it at the first and each subsequent visit can facilitate the structuring of knowledge about the patient and his issues, as well as the evaluation of his response to the applied treatment method.

The Buss-Durkee Inventory questionnaire (Buss-Durkee Inventory) seems to be the most popular for studying aggression levels. It is designed to study adolescents from the age of 14 and allows measuring the intensity of aggression in its various forms. It consists of one hundred items, describing eight types of aggressive behavior, which form the following scales:

- indirect aggression
- verbal aggression
- physical aggression
- suspicion
- resentment
- irritability
- guilt
- negativism

Considering that aggressive behavior is more common in children with comorbid other disorders, it is also worth mentioning the Nisonger Child Behavior Rating Form (NCBRF) scale. It is a tool designed to assess the behavior of children with intellectual or developmental disabilities and children with autism spectrum disorders. The NCBRF consists of three parts:

I) where evaluators can identify unusual circumstances that may have influenced the young person's behavior;

II) where positive behaviors are assessed;

III) where problem behaviors are listed.

There are separate versions of the form for the teacher and parent. The NCBRF takes about 15 minutes to complete and is designed for use with children and adolescents between the ages of 3 and 16 [6].

Differential diagnosis of aggressive behavior

The basis for a correct diagnosis is the exclusion of other disorders that may manifest similarly. Psychiatrists and cooperating specialists should, sometimes repeatedly, ask whether the aggression appeared after some incident, such as drug use, experience of trauma, being a victim of peer or domestic violence, or whether the symptoms have been building up since early childhood.

Aggressive behavior can include problems with impulse and emotion regulation, as well as serious violations of others' boundaries [1]. Although there is a wealth of literature on the treatment of aggression, it is important to emphasize that aggression is not a disorder in itself, but a secondary symptom of another etiology or diagnostic entity [7]. In clinical practice, it is essential to realize that aggressive behaviors in children are nonspecific symptoms in medicine. Their sudden appearance should prompt a thorough physical and subjective examination to determine what kind of disorder may be involved. An interaction between the child's psychopathology and the family system should be assessed, and a careful differential diagnosis should be made.

Aggression can also occur in autism spectrum disorders, bipolar affective disorder, intellectual disability, psychosis or somatoform disorders - endocrine, neurological and others but these topics are beyond the scope of this analysis [7]. Aggression is a transdiagnostic phenomenon and should improve after treatment of the underlying cause. If this does not happen, as with other psychiatric therapies, it is important to reassess the working diagnosis. Therefore, therapy for aggression varies depending on the patient and is based on the most likely etiology [8].

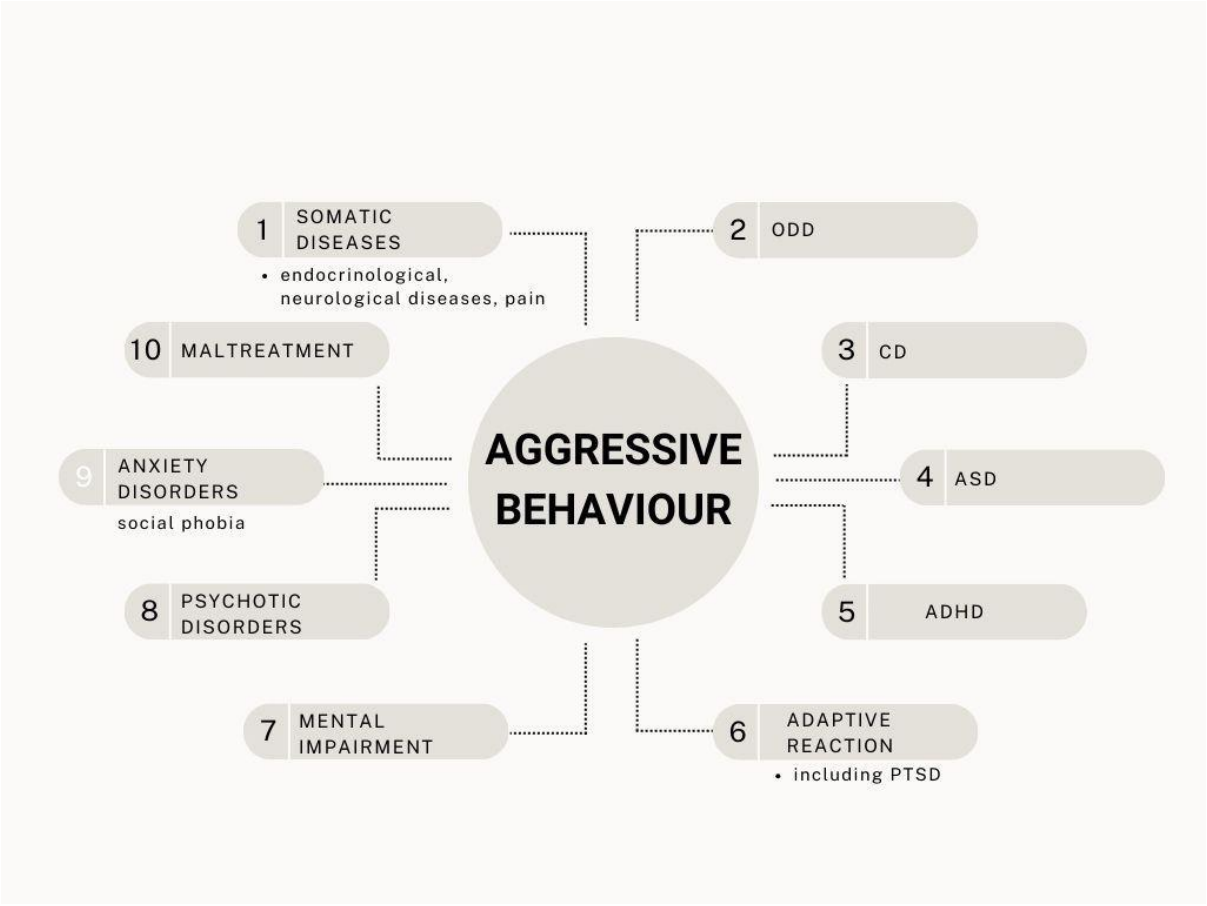

Figure 1. Own figure based on the book "Mental disorders in children and adolescents" by B. Remberk [9]

A comprehensive evaluation commences with collecting a thorough medical history and analyzing symptoms in a developmental context. It is essential to interview the caregiver and child both separately and together. Psychopathology and potential triggers must also be ruled out. To this aim, a risk analysis is conducted and appropriate assessment scales are used early in the process to help diagnose and track symptoms.

Based on the assessment results, holistic treatment approach focuses on helping the family receive evidence-based psychotherapy that is appropriate to the child's age and developmental level. It is crucial to involve the child, family and school in actively implementing psychosocial strategies and appropriate support. Treatment should follow evidence-based guidelines including both psychotherapy and medication for the underlying disorder [10].

Psychotherapy, psychoeducation

Psychotherapeutic techniques, recognized as the most effective way to help, are mostly the first course of treatment for aggression in adolescents.

They are aimed both at developing the parenting skills and improving family functioning, and at developing the child's interpersonal skills, solving his problems related to educational performance and peer group relations [3].

They can be divided into:

- behavioral parenting training:

Considered the gold standard in the treatment and prevention of behavioral disorders, recommended in any form of conduct disorder.

During the workshop, parents practice using parenting methods based on extinguishing undesirable behavior, behavioral reinforcement and shaping desired behavior. They learn to give effective commands, use rules, consequences, praise and rewards. Depending on the type of conduct disorder, specific techniques are adapted to the child's needs.

- child-directed interventions:

These include therapeutic activities for children based on cognitive-behavioral methods, such as aggression replacement training, anger management and social skills training. In this group of adolescents, ongoing assessment of peer relationships and monitoring for the establishment of relationships with antisocial groups is also necessary [11].

School-based interventions are also indispensable - supporting the child on school grounds (especially important in the case of children with additional dysfunctions: specific school difficulties, attention deficit hyperactivity disorder) and filling free time with attractive and safe activities for the child.

Psychotherapeutic interventions should continue throughout the patient's care. These programs improve parent-child interactions, lead to more positive parenting styles, provide education on appropriate discipline and improve communication [11]. Evidence suggests that interventions with a parent, with or without other components, have the greatest impact on treating conduct disorders in adolescents [12].

Psychosocial interventions tend to be less effective for CU traits, although research is ongoing, and some strategies seem preferable for treating CU traits (i.e., emotion regulation

Psychoeducation

The main task of psychoeducation is to enable the identification and understanding of both the function of symptoms and behaviors that reduce the severity of symptoms and counteract their occurrence.

Psychoeducation makes it possible to develop an understanding of the symptoms presented and consistent methods of dealing with a person of developmental age presenting conduct disorders - to develop proper patterns.

Appropriate work with the parent is particularly important in the case of children with CU, where punishment is the basis for maintaining and developing the problem. A parent should understand that in the case of CU, the primary problem is the way their children process emotions, whicht is not their personal fault.

As conduct disorders are a heterogeneous group of difficulties, the aforementioned methods are used singly or in combination with other therapeutic methods [14].

Depending on the factors that characterize it, the prognosis is determined and an attempt is made to select the most effective treatment.

Although a combination of behavioral, psychosocial, and school-based interventions is usually the first-choice treatment option, aggravated conduct disorders often do not resolve despite the use of such strategies. Pharmacotherapy is then helpful, especially when the patient's main problem is aggressive behavior [3].

Pharmacotherapy

Pharmacotherapy should be used if the severity of the symptoms and the discomfort they cause impede the patient's development and functioning, while behavioral approaches (psychotherapy, psychoeducation) are insufficient. As described earlier, a comprehensive assessment, treatment of the underlying disorder (which may include both psychotherapy and pharmacological treatment), and the use of psychosocial interventions are recommended before considering the use of drugs to treat aggression.

As an example example, when treating the underlying disorder, many studies have shown that in children with ADHD, medications used to treat ADHD also reduce aggressive behavior. [10]

Further caution is required to be taken when considering the use of medications for very young children (preschool age), as the diagnostic process and evaluation are more complex than for older children. In addition, fewer studies have been conducted in patients in this group, therefore the effects of pharmaceuticals on the developing body may be more unpredictable and complicated.

Medications listed in the National Institute for Health and Clinical Excellence (NICE) recommendations [15] include risperidone (short-term for up to six weeks to treat severe conduct disorders) and methylphenidate (in children with concomitant ADHD). Antipsychotics: quetiapine, haloperidol; mood-stabilizing drugs: valproic acid, lithium, carbamazepine and other stimulant drugs and clonidine are still being studied and may prove beneficial. Unfortunately, rigorous studies are still lacking to determine which drugs are more effective in treating which types of behavioral disorders. [2]

The use of medications from various classes has been described in children and adolescents with CD. However, most of these pharmacological interventions were based on data from single observations and preliminary studies. The use of psychostimulants, normothymic drugs (LNTs) and antipsychotics (LPPs) has been documented. [3]

Pharmacotherapy should be an integral part of a comprehensive therapeutic program, including psychosocial and educational measures. It is recommended that risperidone be prescribed by specialist in child neurology, child and adolescent psychiatry or physician specializing in the treatment of behavioral disorders in children and adolescents [16].

Atypical antipsychotic drugs

Risperidone

Atypical antipsychotics are the best-studied class of drugs targeting irritability in ASD. Risperidone and aripiprazole are atypical antipsychotics approved by the Food and Drug Administration (FDA) for the treatment of irritability in adolescents with ASD.

According to the Summary of Product Characteristics, although risperidone is indicated for the treatment of schizophrenia and maniac episodes in adults, it also has an indication for the short-term (up to about 6 weeks) treatment of persistent aggression in behavioral disorders in children over the age of 5.

Dosage is adjusted according to the patient's weight, and need, as patients demonstrate significant differences in response to this drug. As with other symptomatic drugs, continuation of treatment with risperidone should be reviewed and justified by the patient's current condition. The use of risperidone is not recommended in children under the age of 5, due to insufficient data on the efficacy and safety of risperidone in these patients.

The biggest drawback and the main reason why risperidone should not be used long-term is its side effects. Due to possible impacts on concentration and learning ability, its sedative effects should be watched carefully in this population. The administration of risperidone can lead to a moderate increase in body weight and body mass index (BMI). Therefore, it is advisable to measure initial body weight before starting treatment and to monitor weight regularly during therapy. In addition, since the long-term effects of risperidone on growth and sexual maturation have been insufficiently studied, it is necessary to regularly assess the patient's endocrine status. Measurements of height, weight, level of sexual maturation, menstrual control and other possible prolactin-dependent effects should be considered. At the same time, the occurrence of extrapyramidal symptoms and other movement disorders should be regularly monitored during risperidone treatment.

Caution should particularly be exercised in patients receiving concomitant psychostimulants (e.g., methylphenidate) and risperidone, as extrapyramidal symptoms may worsen when adjusting the dose of one or both drug products.

In general, children and adolescents are presumed to have similar adverse reactions to those found in adults. Among the most commonly reported adverse reactions, occurring at a frequency of ≥ 10%, are parkinsonism, sedation, headache and insomnia. .

For children aged 5-17 years, additional side effects have been described that occur at a frequency of ≥ 5% and are at least twice as common as in adult studies. These include somnolence and/or sedation, fatigue, headache, increased appetite, vomiting, upper respiratory tract infections, nasal mucosal congestion, abdominal pain, dizziness, cough, fever, tremor, diarrhea and involuntary urination. [16]

Aripiprazol

According to the summary of product characteristics [17], it is indicated for the treatment of irritability associated with autistic disorders; however, the safety and efficacy of the product in children and adolescents under the age of 18 have not yet been determined.

With more data on the topic of safety in children and adolescents with behavioral disorders, aripiprazole could be an alternative in patients with excessive body weight, metabolic syndrome, increased cardiovascular risk, especially when they are inactive and indiscriminate about their condition.

In patients between the ages of 6 and 17, aripiprazole was studied in two 8-week placebo-controlled trials, one with a variable dose and the other with a fixed dose, and one 52-week open-label study. More than 75% of the patients were younger than 13 years old. Aripiprazole showed statistically superior efficacy compared to placebo on the Aberrant Behaviour Checklist Irritability subscale [18,19]. However, the clinical significance of this observation has not been established

Lurasidone

Other atypical antipsychotics, such as lurasidone, are often considered for off-label use in the treatment of irritability, either because of tolerability problems with risperidone and aripiprazole, or because of the drug-resistant nature of this symptom syndrome.

To date, the safety and tolerability of lurasidone for the treatment of irritability in adolescents with ASD and CD have yet to be established, and lurasidone is the only antipsychotic with published negative placebo-controlled results [20].

Psychostimulant drugs

Methylphenidate (co-occurrence of CD and ADHD)

The choice of pharmacotherapy must take into account the fact that ADHD often co-occurs with ODD, CD and anxiety disorders. In a significant number of patients with ADHD and irritability who are treated with methylphenidate in monotherapy, the drug shows significant effects in alleviating aggression..

In the 14-month Multimodal Treatment of ADHD study, it was shown that children in

combination treatment with methylphenidate and intensive behavioral therapy showed significant improvement compared to a group using intensive behavioral therapy alone, or medication alone [7].

A 2013 study also showed that features of CU accompanied by proactive aggression decreased in children with ADHD and CD or ODD treated with the optimized regimen.

Pringsheim and co-workers [21] compared the efficacy of psychostimulants with other agents in treating children with ADHD and co-occurring ODD/CD and found that psychostimulants were most effective with an effect size (ES) of 0.84. Older studies have shown that MPH is effective in treating aggression in children with CD, both with and without co-occurring ADHD. Similarly, another study found that, compared to other drug classes, stimulants were effective in reducing aggression in adolescents with various primary diagnoses of ADHD, autism spectrum disorder (ASD), mental retardation and conduct disorder with or without comorbid diagnoses of CD, ODD and ADHD (ES = 0.78). They also found that MPH was particularly effective in treating adolescents with ADHD and aggression, with an ES of 0.9. Moreover, Canadian guidelines for pharmacotherapy of disruptive and aggressive behavior in children and adolescents with attention deficit hyperactivity disorder, ODD or CD [22] recommend the use of stimulants in adolescents with ADHD and aggression based on strong pharmacological evidence [10].

Selective norepinephrine reuptake inhibitors (SNRI)

Atomoxetine (ATX)

Atomoxetine is a drug registered for the treatment of ADHD, often considered in patients with disruptive behavior occurring in the context of ADHD and anxiety [23]. It may provide an alternative treatment for oppositional defiant behavior impairment in children and adolescents with ADHD who have responded poorly to, or tolerated, methylphenidate treatment, such as children with tics. However, there is no proven high efficacy in treating aggression in children.

Alpha-2 agonists

Guanfacine and clonidine

These drugs have been shown to have some benefit in treating oppositional defiant behavior in adolescents with ADHD, with or without a formal diagnosis of ODD or CD, both as monotherapy and in combination with a stimulant [7, 10].

The aforementioned articles suggest that the use of alpha antagonists in the treatment of behavioral disorders is best considered as an adjunct when the primary therapy for comorbid ADHD is insufficiently effective, or in monotherapy [24] when their side effects were intolerable.

Their advantage is that children appear to be less prone to developing anticholinergic symptoms than adults. Children receiving clonidine rarely report dry mouth or constipation, but they frequently experience drug-induced sedation.

Antiepileptic drugs

Previously cited papers show studies supporting the efficacy of sodium valproate in the treatment of behavioral disorders in children [3, 10, 22, 25,26]. Although the effect size of valproate is assessed to be subsantial, it is important to emphasize that the estimates are uncertain, the quality of evidence is low, and the side effect burden is high. Given these concerns, a clinical recommendation for the use of valproate in the treatment of aggression should generally come from a specialist with experience in behavioral disorders in children and experience in the use of valproate.

Lithium

The research showed that lithium was more effective than placebo in treating acute aggression in children and adolescents with CD. It showed a reduction in aggressive behaviors such as chronic explosiveness, bullying, fights and temper outbursts among hospitalized adolescents with CD and chronic severe aggression [10]. However, the drug is not recommended for treating aggression due to the need to monitor its blood levels monthly and its numerous side effects [26], especially in children whose organisms are still evolving.

Selective serotonin reuptake inhibitors (SSRI's)

While SSRIs are often used as first-line drug treatment for psychiatric disorders in children, their use for behavioral disorders is not standard practice. Accurately diagnosing the cause of the disorder is crucial, as aggression can be a symptom of anxiety or depressive disorders. Reduced serotonin levels, associated with impulsivity and irritability, are often linked to dysfunctions of the serotonergic system. However, the number of articles on the use of SSRIs to treat aggression is limited.

Studies indicate that oppositional defiant disorder often co-occurs with anxiety, such as generalized anxiety, specific phobias or social anxiety (9-49% in epidemiological studies; up to 40% in groups of diagnosed children). This may suggest a role for the serotonergic component in the etiology of behavioral disorders, as dysfunctions in serotonergic transmission are associated with a tendency toward violence and behavioral dysregulation [27].

In most studies, SSRIs have been found to improve mood, reduce irritability and anger expression after several weeks of treatment. However, in many cases, it has been necessary to increase the dosage of sertraline during the course of treatment to avoid exhaustion effects. Moreover, not all patients respond to therapy; some may even experience an increase in irritability after a few weeks, which may require discontinuing treatment or lowering the dose to the initial level [28].

Irritability management in children with a diagnosis of severe mood dysregulation (SMD) has also been analyzed. A comparison of citalopram with placebo when added to MPH monotherapy showed that citalopram effectively reduces severe irritability in children and adolescents who do not respond to MPH alone [27,[29]

Antidepressants are typically used when anxiety is considered a significant factor in a child's destructive behavior.

In the case of children with autism spectrum disorder (ASD), they often require lower doses of SSRIs than neurotypical children, which can lead to their response being considered "undesirable." A thorough understanding of the family history of psychiatric disorders is necessary to determine whether anxiety and disruptive behavior are related to ASD or are a separate disorder. [23] However, when including SSRIs, attention should be paid to their interactions with risperidone. Many SSRIs, such as fluoxetine and paroxetine, are potent CYP2D6 inhibitors, which can increase risperidone plasma concentrations [16].

Limitations of pharmacotherapy

Pharmacotherapy in children and adolescents presents many challenges. The use of drugs in this age group is limited by the risk of side effects that can negatively affect their growth and development. The limitations of pharmacotherapy are also due to the fact that drugs are often used outside the registered indications. This results in restricted data on the safety and tolerability of therapy in young patients. The consequence is a lack of comprehensive descriptions of methods of dealing with side effects, which increases the risk of medical mistakes and the appearance of long-term side effects.

It is therefore crucial to carefully evaluate the drugs used in this age group to ensure effective and safe treatment.

Conclusion

Aggression in behavioral disorders is a complex and varied phenomenon, which means that its pathophysiology and clinical picture can differ significantly from patient to patient. The co-occurrence of other disorders further complicates diagnosis and therapy. The mixed etiology, involving both biological and environmental factors, points to the crucial role of normal environmental behaviors as a protective factor. If these behaviors are not present from early childhood, psychoeducation can help acquire them, forming the basis of treatment for behavioral and aggressive disorders.

An appropriate therapeutic approach should include understanding the child's messages, providing a sense of importance, warmth and parental involvement. Discipline based on violence, especially against children with Callous-Unemotional (CU) traits, can lead to an increase in oppositional and negative behavior. In cases where psychotherapy and psychoeducation are not sufficient, pharmacotherapy is used, with risperidone as the most commonly used drug, despite its limitations and side effects.

Further work is needed on effective diagnostic tools and intervention methods that take into account the age, developmental level, contexts of the child's functioning and the active involvement of parents in the therapeutic process.

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