

Latent Aggression and Impulsive Manifestations of the Psychiatric Patient. Clinical, Legal and Ethical Aspects

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Abstract: *Psychiatry represents the medical branch that focuses not only on the patient's mental state but also on general health issues and wellbeing. With the continuous development of human civilization, the individual no longer uses aggression, a counterproductive method for day to day living in the community, to meet its basic needs. Neurobiological changes that lead to aggressive manifestations are a medical problem only if the aggressive impulses occur in a person with a psychiatric diagnosis already established and poses a danger to himself and others. Aggressive behaviour due to a medical condition or biological factors is an old problem that has great forensic implications both for the patient and for the medical staff. Decreased quality of life, low emotional support and social marginalization are some of the repercussions that emerge. Understanding the negative effects of aggressive impulses found in multiple psychiatric diagnoses is the key to an optimal doctor-patient relationship. An individualized treatment is necessary, the final goal being social reintegration.*

Keywords: *aggressive manifestations; psychiatric diagnosis; social reintegration.*

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Introduction

Aggression in the psychiatric environment is a real problem for both the patient and the medical staff due to the numerous ethical, legal and moral issues. It is necessary to have a good knowledge and understanding of the term aggression in order to implement a correct medical treatment that offers the patient a functionality as close to normal as possible and also protection for the doctor and auxiliary staff involved in managing the case.

Aggressive behaviour is found in most species as an adaptive function. In the human species, however, with the continuous development of civilization, the individual no longer uses aggression as a method of satisfying basic needs. Persistent patterns of aggressive behaviour mask psychiatric disorders that often require medical treatment and psychological intervention (Archer, 2009).

Various definitions of the term “aggression” have been formulated over time, but the etymology of the word comes from the Latin *aggressio* which means “to attack”. Therefore, what designates aggression is the act of attacking, undermining, or destroying an object or being consciously, intentionally, or outside the rational exercise of thought in order to provide the resources necessary for survival or for personal protection or protection of those around.

The above definition also requires a social context and does not imply self-aggression. Aggressive impulses are a medical problem when the patient already has a psychiatric diagnosis and is a danger to himself and others. Extensive studies have highlighted areas of the brain that are related to behavioural changes and aggressive behaviour, especially in the limbic system. The amygdala is the one that deals with fear emotions, defensive reactions, motivation and emotional learning. The hypothalamus together with the amygdala mediates fear and anger. Electrostimulation of the amygdala causes an increase in the intensity of aggression, while amidelectomy reduces it. Destruction of the amygdala makes it impossible for the patient to recognize facial emotions. In addition to the limbic system, other brain areas with a role in emotional processing have been discovered, such as the pre-frontal dorso-lateral cortex (DLPFC) and the orbito-frontal cortex (OFC), which integrate information with the corresponding affective signal. Destructive changes that occur in this area affect cognition, memory and emotions in general. If the neural network between the limbic system and the orbito-frontal cortex is affected, changes occur in terms of emotion processing and the per se damage of the regions results in difficulties in

regulating emotions with an inhibitory deficit of aggressive behaviour. Patients with anatomical lesions at the OFC level have higher violence/aggression scores compared to normal controls and patients with brain lesions located in other areas (Cardinal et al., 2002).

Sociopathic behaviour arises due to destruction of the frontal lobe, especially the ventro-medial prefrontal cortex. Lesions in the amygdala and hippocampus were highlighted by imaging scans, changes that were not found in patients with non-violent behaviour. Another structural feature is the reduced prefrontal lobe volume in patients with antisocial personality disorders following nuclear magnetic resonance examination.

In addition to structural changes, neurochemical changes were also noted. Thus, Volkow et. al noted low glucose use in the prefrontal and temporal cortex in patients with a history of aggression (Volkow et al., 1995). Metabolic hypoactivity in the frontal region and subcortical hyperactivity were noted in aggressive criminals compared to control groups (Raine et al., 1998). In patients with a history of repetitive aggressive manifestations, an inverse correlation was observed between aggressive impulses and OFC metabolic activity (Cherek et al., 2006, pp. 424–446).

Reduced metabolic activity in the hypothalamus, thalamus, and OFC was also observed in individuals with a history of domestic violence who also had an alcohol dependence compared to healthy control groups (Chirita et al., 2012; New et al., 2002).

Aggressive traits are influenced by both genetic factors and the external environment (Miles & Carey, 1997). Following a study by Yeh et al. (2010) genetic mechanisms have been shown to account for 28% of verbal aggression, 35% for aggressive traits involving the use of objects, and 45% for aggressive aggression against others.

Studies in humans suggest that the neural circuit which generally handles aggressive manifestations is vast and complex and is associated with low cortical functionality in the dorsolateral orbital and prefrontal area, while in the temporal medial area increased functionality is noted (George et al., 2004).

Aggressive behaviour is divided into two entities: the form in which it occurs and the type of manifestation. Aggression can be verbal and/or physical manifesting itself in a direct or indirect form. The indirect type of conduct that aims to damage interpersonal relationships is called “relational aggression” (Murray-Close et al., 2010). Aggression is also seen in an accepted social form (eg. law enforcement) or as part of the basic traits of a psychiatric patient. Other types of aggression include premeditated aggression and impulsive aggression (Barratt et al., 2010).

The difference between the two is that, in the premeditated type, it is used as a purpose to obtain a material good, for example hitting a person to steal his bag, while in impulsive aggression the desire to hurt the other is the main goal of the act.

Aggressive manifestations and epilepsy

Epilepsy is a central nervous system (neurological) disorder in which brain activity becomes abnormal, causing seizures or periods of unusual behaviour, sensations, and sometimes loss of awareness (Marcangelo & Ovsiew, 2007).

The underlying mechanism of epileptic seizures is excessive and abnormal neuronal activity in the cortex of the brain (Fisher et al., 2005). The reason this occurs in most cases of epilepsy is unknown (Hammer & McPhee, 2010). Some cases occur as the result of brain injury, stroke, brain tumours, brain infections, or birth defects through a process known as epileptogenesis.

New studies in epilepsy have shown that aggressive manifestations during seizures are short-lived and limited; they are not planned and with a specific direction. They usually occur at the onset of an epileptogenic seizure as a defensive measure or when the patient is being held by others.

A complete medical history, psychiatric comorbidities, social history and the presence of trigger factors are necessary to establish a correct diagnosis and institute drug treatment for these patients.

Dementia and aggression

Dementia is a set of related symptoms that involve progressive impairments to memory, thinking, and behaviour, that affect the ability to perform everyday activities (Livingston et al., 2017).

Most often patients with dementia are agitated and have hallucinatory symptoms. The etiology of dementia is necessary to institute a treatment that slows the progression of the disease. The aggressive manifestations found in this diagnosis are usually directed at family members and represent additional stress for the family, which leads to the institutionalization of the patient (Ciobotea et al., 2016).

In a study by Jost et al., the major symptoms were classified into 3 groups, namely agitation, psychotic and affective symptoms. It was found that the onset of dementia occurs with a psychotic syndrome while agitation is diagnosed in the first year after onset. Affective symptoms are the last to appear.

Some evidence suggests that education and support for the person with dementia, as well as caregivers and family members, improve outcomes. Cognitive and behavioural interventions may be appropriate (Valcea et al., 2016).

Aggression and psychosis

Psychotic disorders, such as schizophrenia, are accompanied by symptoms that distort perception and thinking such as auditory or visual hallucinations, delusional ideas, pursuit, persecution and suspicion. Inadequate family and social support, abuse and stigmatization make it difficult for the schizophrenic patient, reducing his addressability to medical services, compliance with drug treatment and psychotherapeutic means (Bolos et al., 2012).

Against such a vulnerable background, a patient suffering from auditory hallucinations or ideas of persecution is more likely to commit acts of violence, being under the belief that his life is in danger or that those around him want harm. Among patients with schizophrenia, studies have shown that those suffering from hallucinations are less violent than those with delusional ideas of persecution and harm (Walsh et al., 2001). However, in most cases of violence involving people with psychotic disorders, they were the victims.

Schizophrenia and psychotic disorders are psychiatric disorders with a lower violent potential compared to affective disorders or antisocial personality disorder. Although psychosis itself is an unpredictable medical condition, not subject to the logical behavioral reasoning of healthy subjects, acts of violence committed by a psychotic patient can occur after a series of stages or psychotraumatic events and have a prodromal phase. The family or those close to the patient notice changes in the patient's attitude and condition.

Aggression and affective disorders

Aggressive behaviour is also found in patients with bipolar disorder and includes verbal and physical aggression, anger attacks, homicide, sexual assault. A study performed on a number of 121 patients diagnosed with bipolar affective disorder, the most common type of aggression evaluated was verbal (20.4%), followed by physical (19%), against some household objects (17.5%) and finally against the self (14.6%) (Perlis et al., 2004). Most often the aggressive behavior is confused with the state of euphoria present in the context of the manic episode. The patient has symptoms that attract the attention of the family and specialized medical staff, while affecting the

social and professional functionality of the individual (Untu et al., 2015). Driving at excessive speed, alcohol abuse and psychoactive substances, recalcitrant behavior is only part of the symptomatic picture. They can be part of the manifestations of a manic episode when there is an obvious change from a previous level and when the diagnostic criteria are met. If these symptoms persist for a long time (lasting years), they are attributed to a personality disorder. Another type of bipolar disorder is the mixed type, the patient developing at the same time depressive and manic symptoms, which leads to increased irritability, hostility and physical aggression. Most often these patients require hospitalization in a specialized center and psychiatric treatment.

Of particular interest is anxiety disorder, in which the patient has a “fight or flight” response when subjected to negative external stimuli (Barlow, 2002). Hostility, irritability and aggression are just some of the traits that diagnosed individuals have. In this diagnosis, aggression can also manifest itself in the form of anger attacks that the patient has, with the intention of doing harm (Fernandez & Johnson, 1990). Most of the time, the aggressive behaviour that the patient displays is just a normal biological response to the fear and anxiety he feels. Verbal or physical aggression are the most common forms of anxiety in the diagnosed patient (Moscovitch et al., 2008). The continued mental suppression of negative thoughts that an anxious patient may have may manifest itself later in life through uncontrolled outbursts. Recent studies have shown that people with anxiety disorders have an increased risk of having aggressive behaviour due to a genetic susceptibility to stress (Barlow, 2002).

Aggression and substance abuse

Alcohol abuse is one of the most important determinants of aggressive behaviour with the highest rate compared to other psychiatric disorders. Alcohol consumption, benefic in low doses (Ciubara et al., 2018), is often associated with physical violence and can have serious consequences, from causing severe injuries and death. Also, acute alcohol intoxication and alcohol dependence are associated with an increased crime rate worldwide (World Health Organization, 2007; Bulgaru- Iliescu et al., 2015).

People already diagnosed with a personality disorder have a risk of violent and aggressive behaviour that increases with consumption, which is due to the disinhibiting effect that alcohol has; favors risky actions and blurs self-control (Ciubara et al., 2015). Studies show that 60-70% of the male population had at least one episode of physical or verbal aggression directed

at their partner (Gorney, 1989). Domestic violence and alcohol abuse are aggravated when both partners drink alcohol regularly and abusively.

Consumption of psychoactive substances has been correlated with the development of aggressive behaviour. People with such a disorder have an increased risk of being the aggressor or even the aggressor. Just as in the case of alcohol consumption and benzodiazepine use has been correlated with an increased incidence of aggression due to the pharmacological effect it has, namely the action on GABA receptors and the loss of inhibitory control (Dumbrava et al., 2019). There is a vulnerable category of patients such as those with personality disorders, for whom benzodiazepine use increases the risk of violent behaviour.

Long-term use of stimulants such as amphetamine and cocaine cause cognitive changes associated with impulse control, leading to disinhibition and marked behavioral manifestations. In contrast, heroin and tranquilizer abuse alleviate aggressive behaviour due to the sedative effect they have.

Recent studies have highlighted multiple psychological changes resulting from illicit consumption. Thus, aggressive behaviour results from the inability of the individual to procure drugs, the relationships he has with various suppliers of illegal substances, all with a negative impact on the psyche. Another example of global violence is that resulting from rivalry between drug providers as a method of establishing dominance.

Aggression and personality disorders

Personality disorders are an important point in the study of aggression due to the increased prevalence among individuals (Diac et al., 2020). The most common types of disorders with a high incidence of aggression are represented by: antisocial personality, borderline, narcissistic and paranoid (Ciubara et al., 2016).

Borderline personality disorder is characterized by intense or uncontrollable emotional reactions that often seem disproportionate to the event or situation, unstable and chaotic interpersonal relationships; impulsivity and violent or dangerous behaviors. Altered self-image, self-destructive behaviour accompanied by depression or anxiety are some of the characteristics of the diagnosis.

Unusually, the lack of empathy observed in serial killers is an extreme feature of the spectrum. Individuals with this type of personality have deficits of the limbic system, disinhibition in the frontal cortex, making them prone to sadism and lack of empathy (Harenski et al., 2012).

Conclusion

Aggression is the outcome of many psychiatric and non-psychiatric etiologies that require increased attention for diagnosing, treating, and socially reintegrating the patient. In the psychiatric field, aggressive impulses are of major importance because they involve the patient as a dual person: the aggressor and the aggressed person with multiple forensic and social implications.

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