

CONVERSION DISORDER IN CHILDREN: LITERATURE REVIEW

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INTRODUCTION

Conversion Disorder is a disease that presents symptoms or deficits that affect patients' voluntary motor and sensory functions. It is triggered by emotional stressors, does not have an identifiable organic neurological basis and is not produced intentionally by patients (Kaplan, 2017).

HISTORICAL ASPECTS

Conversion symptoms are historically correlated with the psychopathological condition called Hysteria. Ancient doctors believed that this disease was directly linked to pathological changes present in the patient's uterus. Neurologist and professor Jean Martin Charcot (1825–1893) began the systematic study of these conditions using the hypnosis method. Later, Sigmund Freud (1856 – 1939), in collaboration with Josef Breuer, postulated the theory that Hysteria was a neurosis caused by repressed emotional traumas of great intensity (van der Kolk et al., 1989). The term “conversion” was initially introduced by Freud in his work with patient Anna O, where he hypothesized that the symptoms of conversion disorder reflect unconscious conflicts. According to psychoanalytic theory Conversion Disorder is caused by the repression of an unconscious intrapsychic conflict, converting anxiety into a physical symptom. This occurs when an instinctual impulse (aggression or sexuality) is prohibited from expressing.

EPIDEMIOLOGY

There is still a lack of epidemiological studies that determine the exact prevalence of conversion disorders in children. This is possibly due to the polymorphic presentation of these conditions in this population, making the diagnosis and systematic study of this pathology difficult. A survey carried out in Australia found an incidence of 2.3 to 4.2

cases per 100,000 inhabitants in specialized pediatric care clinics (Kozłowska et al., 2007).

Regarding distribution by gender, there was a prevalence of three girls for one boy (GrattanSmith et al., 1988). The average onset of the condition is around 12 years of age (Ani et al, 2013). However, an earlier age of onset of 8.2 for boys and 9.4 for girls has been observed in patients with pseudoseizure conversion (Bhatia et al., 2005). The disorder rarely manifests itself before the age of eight.

ETIOLOGY

It is believed that conversion symptoms are associated with strong emotions or situations that threaten the individual's psychological or physical integrity. In this sense, it is believed that conversion reactions may have a phylogenetic origin in innate instinctive protective responses (Kozłowska et al., 2007). A control group study of 105 patients showed that children with conversion reactions had a higher frequency of recent family stressors (97%), unresolved grief reactions (58%), and communication problems at home (77%) (Maloney, 1980). The presence of psychiatric illnesses such as depression and anxiety in parents is common. An important relationship has also been found between early stressful events such as sexual and physical abuse in childhood and the presence of conversion symptoms, especially non-epileptic seizures (Pehlivanurk and Unal, 2000).

Regarding the observed brain neurobiological changes, studies have associated conversion disorder with an activation of the frontal cortex after exposure to emotional stressful events in patients. This change leads to an inhibition of the basal ganglia-thalamocortical circuits, producing deficits in sensory awareness or motor processing (Harvey et al., 2006). Hyperactivity in the anterior cingulate gyrus has been reported in patients with psychogenic motor

paralysis (Fink et al., 2006). An interesting fact was that functional neuroimaging studies demonstrate some similarities and associations between Conversion Disorder, Depression and Post-Traumatic Stress Disorder (Ballmaier and Schmidt, 2005).

COMORBIDITY

A high rate of Mood and Anxiety Disorder has been observed in children with Conversion Disorder (GrattanSmith et al., 1988; Pehlivanurk and Unal, 2000). A study with 38 patients revealed at least one comorbid psychiatric diagnosis in approximately 89.5% of patients with this illness (Sar et al., 2004). Dissociative Disorders were present in 47.4% of these individuals. Patients with Conversion Disorder and Dissociative Disorder have a high prevalence of Dysthymia, Major Depressive Disorder, Somatization Disorder and Personality Disorder in young people. It also notes a higher prevalence of childhood emotional and sexual abuse, physical neglect, self-harm behavior and suicide attempts.

CLINICAL MANIFESTATIONS

The onset of Conversion Disorder symptoms is usually acute, but eventually the symptoms can also manifest themselves insidiously. Deficits are generally short-lived, and about 95% of acute cases have spontaneous remission, usually within two weeks in hospitalized patients. Motor symptoms include abnormal movements, gait disturbance, pseudoseizure, and paralysis. Gross rhythmic tremors, choreiform movements, tics, and twitching may be present. Movements often worsen when attention is focused on them. A gait disorder seen in conversion disorder is astasia-abasia, which is an extremely ataxic, staggering gait accompanied by coarse, irregular truncal movements, jerking and swinging movements of the arms. Patients with symptoms rarely fall

and if they do, they generally do not get hurt. A retrospective study over 10 years carried out at a University Hospital in Australia identified 52 cases of children with conversion disorders. In this study, the most common symptoms were observed to be changes in gait, present in 69% of children. The presence of multiple symptoms occurred in 62% of patients. Pain was also a very prevalent complaint along with non-epileptic seizures (GrattanSmith et al., 1988). In the United Kingdom, a prospective cohort study was carried out which reported motor weakness as the most frequent conversion symptoms, followed by the presence of abnormal movements and non-epileptic seizures. A high prevalence of pain was also found in these patients (Ani et al., 2013). In general, it has been observed that the most prevalent conversion symptoms in this age group are gait changes, pseudoseizures and paralysis (Lehmkuhl et al., 1989). A study carried out in Turkey found pseudoseizure to be the most common conversion symptoms in children, occurring in 82.5% of patients (Pehlivanurk and Unal, 2000). These crises resemble a sudden convulsive event, however they present a normal electroencephalogram exam as well as complementary and neuroimaging exams. Even for reference centers, the diagnosis of pseudoseizures and epileptic seizures is a challenge. It is often necessary to resort to video-electroencephalography examination to exclude true epileptic seizures. It is important to emphasize that conversion symptoms must be temporally correlated to psychosocial stressors and must not be intentionally produced. There is much greater concern regarding symptoms among parents and doctors than among patients themselves. This condition is called La Belle indifference, and is observed in around a quarter of individuals with the disease. Regarding the course and evolution, fortunately, Conversion

Disorder in childhood is usually associated with positive outcomes (Leary, 2003; Wyllie et al., 1991).

TREATMENT

The first step in managing a case of Conversion Disorder in children is a thorough and complete neurological and medical evaluation. It is important to remember that neurological conditions can coexist with these conditions. It is estimated that 25 to 50% of individuals classified with this pathology end up being diagnosed with another clinical or neurological problem. Unfortunately, there is still little evidence and studies involving the treatment of Conversion Disorders in children. Psychotherapy is always indicated, highlighting that a study demonstrated the effectiveness of Cognitive Behavioral Therapy for treating these patients (McFarlane et al., 2018). Pharmacological treatment is basically aimed at treating psychiatric comorbidity, and antidepressants may be used (Turgay, 1990). Selective Serotonin Reuptake Inhibitors (SSRIs) such as Fluoxetine and Sertraline are options that can be used in this age group to treat depressive and anxious conditions, conditions common in

this disorder. A randomized, double-blind pilot study conducted on adult individuals with pseudoseizures demonstrated a 45% reduction in the frequency of non-epileptic seizures in individuals who used Sertraline (LaFrance et al., 2010). The authors Bhatia and Sapra (2005) carried out a clinical study without a control group with 50 children with Conversion Disorder, and were able to observe a remission rate of around 72% in individuals undergoing psychotherapy and pharmacological treatment.

CONCLUSION

There are still many gaps in knowledge to be explored regarding Conversion Disorder in children, both in relation to its etiology and its treatment. Its close relationship with Post-Traumatic Stress Disorder draws attention and deserves to be explored more intensively. It is imperative to investigate conditions of abuse, whether sexual or physical violence, in children who show symptoms of conversion, especially in those who present with pseudoseizures. There is a need to carry out more clinical research involving the pharmacological treatment of these patients.

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