

FIRST-PSYCHOTIC EPISODE IN CHILDHOOD AND ADOLESCENCE

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SUMMARY

Introduction: Psychosis in childhood and adolescence are defined as having delusions or hallucinations, with the hallucinations occurring in the absence of insight into their pathological nature. A broader definition includes symptoms such as disorganised speech and grossly disorganised or catatonic behavior. Negative symptoms such as alogia, amotivation and anhedonia can be present. Cognitive and mood symptoms may also be present. There are relatively few epidemiological studies on child and adolescent onset psychosis. It is generally held that the incidence of psychosis, and especially of schizophrenia, increases markedly during the teenage years, with a preponderance of male over female patients.

Aim: This is a descriptive review of child and adolescents with psychotic symptoms. It aims to describe their clinical profile, associated risk factors and management strategies utilised.

Results: While psychotic disorders are considered rare in children and adolescents, they may severely affect development and long-term functioning. Early identification and intervention are critical to improving outcome. This review suggests that a considerable number of adolescents presenting with psychosis required lengthy periods of inpatient care.

Conclusion: There is often diagnostic uncertainty in the first episode of child and adolescent-onset psychosis. Key diagnostic issues relate to distinguishing schizophrenia from bipolar disorder in psychotic adolescents. The differential diagnosis may include psychotic disorder due to a general medical condition, or a substance-induced psychotic disorder.

Key words: first psychotic episode – child - adolescent

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INTRODUCTION

The presence of psychotic tendencies in childhood is discussed for many years but the possibility of their existence in this developmental period was denied. It has been questionable the possibility of existence of delusion because it was thought that children are not fully developed ego structure and are therefore unable to have delusions. The ability of children to produce psychotic symptoms that resemble those in adults or are equal implies greater level of maturity of the ego.

As younger is a child there is a greater uncertainty of nosological classification of psychotic disorder. There is a great danger to overlook child's physical diseases or early brain damage.

Also, it has been wondered how it is possible to distinguish psychotic symptoms than the world of fantasy (imagination) which is a part of normal child's development.

The psychosis in childhood is well-known clinical entity today, but the clinical presentation in childhood is different from those in adulthood even when we talk about the same disease.

Psychotic disorders in children include a group of disorders of different etiology that can be acute and transient or become long-term and chronic disease with a poor prognosis and long-term therapy. Large group of these disorders include the category of pervasive developmental disorders which appear to the age of 3. Children with psychotic disorders, especially those in younger age, often have damage of the central nervous system (CNS), epilepsy or higher risk for its occurrence and some of them are mentally retarded.

Psychotic disorders in developmental age include:

- Infantile autism (particularly Kanner type);
- Disintegrative psychosis (Heller, psychosis in the brain diseases);
- Grafted psychosis (with present mental retardation or organic mental disorder);
- Schizophrenia;
- Atypical psychosis (which cannot be classified into any of the previous groups);
- Psychotic reaction (single state of psychotic behavior that lasts from several weeks up to several months or sometimes just a few days, with complete recovery; these states are often reactions to the unusual, clearly defined high intensity mental burden).

The beginnings of thinking about the psychotic disorders in childhood start from the 19th century, on 1874, when Maudsley describes as the first author the term "madness in early life" in his book "Physiology and Pathology of the Mind". However, De Sanctis was the first who separated schizophrenia in children from other mental and neurological disorders in the childhood such as an epilepsy or post-infectious encephalopathy. In 1919 Kraepelin introduced the concept of dementia praecox and recorded its beginning in late childhood and adolescence. Krepelin suggested that 3.5% of patients with schizophrenia have an onset before the age of 10. Potter gave a more clearly description of schizophrenia and offered specific diagnostic criteria for children (Davis, Charney &, Coyle 2002)

Despite attempts to recognize children's schizophrenia as a separate clinical entity, between 1920 and 1970 the name psychosis in childhood included all forms of serious mental disorders in childhood, inclu-

ding autism and schizophrenia. With description of early infantile autism Kanner separated schizophrenia from pervasive developmental disorder (Wing & Wing 1982).

CAUSES

Psychotic disorders in developmental age include group of disorders of different etiology and can be acute and transient or exceed into long-term and chronic disease with a poor prognosis and long-term therapy. Large group of these disorders includes the category of pervasive developmental disorders that occur up to age of 3. Children with psychotic disorders, particularly those in younger ages, often have damage of the CNS, epilepsy or are at risk for its occurrence. Some of them occur in children with mental retardation. Among children may occur functional psychoses such as child schizophrenia and bipolar disorder, and psychotic symptoms were observed in other mental disorders such as depression and some forms of alcohol or drugs abuse (American Academy of Child and Adolescent Psychiatry - AACAP). According to AACAP two most common psychotic symptoms are delusions and hallucinations.

In this age can be appear psychotic reactions that represent the state of current psychotic behavior which can last from several weeks up to several months but sometimes just a few days with complete recovery. Those are often the reactions to the unusual, clearly defined mental burden of high intensity (painful traumatic experience). A number of factors (developmental, psychological, medical or family) may produce psychotic symptoms in childhood (Anonymous 2000). The bizarre behavior, delusions and hallucinations may occur after use of certain medications (e.g. amphetamines-like or anti-cholinergic drugs, some antibiotics, salicylates, etc.) (Fohrman & Stein 2006). Numerous medical conditions can cause psychotic symptoms in children such as autoimmune diseases (lupus), infectious diseases (viral encephalopathy), neurological disorders (epilepsy, brain injury), endocrine diseases (dysfunction of the thyroid, parathyroid and/or adrenal glands), than hematological, metabolic and genetic diseases, but also brain tumors and exogenous poisoning (e.g. with heavy metals, carbon monoxide, etc.) (Schiffer et al. 1998). Many studies have shown that children exposed to abuse by adults or bullying by peers are twice as likely in preteen age to express psychotic symptoms such as hallucinations and delusions. When abuse is difficult and have long history can be a trigger for schizophrenia in children genetically predisposed to the disease (Schäfer & Fisher 2011).

EPIDEMIOLOGY

Schizophrenia and related conditions in the developmental age are an important group of diseases within a wide spectrum of psychotic disorders. It is estimated that about 4% of all cases of schizophrenia appear before age of 15 and 1% before age of 10.

Among patients in the departments of child psychiatry the percentage of schizophrenia in children is 1-2% while among adolescents is about 5%. In this age is mild prevalent in boys. Studies on clinical population samples reveal that about 10% of cases of schizophrenia occur between the ages of 14 and 20 (Garralda & Raynaud 2012). Some studies have found that aged 15-19 more often affects males while others found a higher incidence in boys under age of 13 (Häfner H & Heiden 1997). Children who have been abused or being teased by peers at a younger age are twice as likely to preteen age suffer from psychotic symptoms such as delusions and hallucinations. Child abuse, particularly when it is difficult and with serious consequences for some children, may be a trigger for schizophrenia in those who are genetically predisposed for this disease (Spauwen et al. 2006). Numerous studies have shown that traumatic experiences in childhood may increase risk of psychotic manifestations (Bendall, Jackson & Hulbert 2010).

CLINICAL MANIFESTATIONS

Children and adolescents experience the same range and types of psychotic symptoms like adults. They may lose the connection between their thoughts and have perceptions without external stimulants. In this developmental period children experience a normal fly of imagination, including an imaginary friends and conversations with stuffed animals, but some of them have hallucinations and delusions which may be early signs of psychosis. The presence of certain factors can increase probability of psychotic illness and those include family history of schizophrenia with deterioration in functioning, a higher level of unusual thoughts, higher level of suspicion, greater social impairment and history of substance abuse. Exposure to violence is a predictor of the less fortunate quality of life in adulthood, including poor mental and physical health. Cognitive impairment, particularly lack of concentration and ability to focusing, is usually associated with a psychotic disorder in children. When the psychosis occurs as secondary because organic causes it is often associated with sensorial impairment, confusion and delirium. The important matter on the children is to distinguishing psychotic symptoms from non-psychotic idiosyncratic opinions, than perceptions caused by developmental delays, exposure to traumatic and upsetting events and excessiveness and a lively imagination. Furthermore, the problem may be distinguishing premorbid state of the active psychotic process. Social withdrawal, shyness and difficulty in accepting social behavior seem to be the first signs of a dysfunctional premorbid development. Early deficits in speech and motor impairments are also very important for the early schizophrenia in children younger than age of 12. However, socially strange child does not be necessary schizophrenic. The fact is that most of the children with hallucinations do not have schizophrenia

due to lack of the necessary stability of the state and associated symptoms. Weird beliefs and unusual behavior deserve observation but cannot be attributed to the psychosis without absence of thinking disturbance. Toxic psychosis is often seen as the secondary state in bacterial or viral infection, fever and due the effects of some substances that include medication, drugs, alcohol and poisons. In these forms of the psychosis are present more visual and tactile hallucinations and other problems of perception. Auditory hallucinations may be observed when they are frightening and often associated with agitation, uncontrolled or even aggressive behavior. Children often describe that experience as "losing the mind" and can be dissociated, unable to orient or unusually behave.

Formal thinking disorders in developmental age, especially on children, require a careful psychiatric and neurological evaluation. The distinction between formal thinking disorders in schizophrenia and those in developmental or speech and language disorders also are diagnostic problem (Caplan & Tanguay 1991). Although the loss of associations and incoherence are diagnostic signs of early onset schizophrenia, they are also occasionally present in schizotypal children (Caplan 1989). Assessment of delusions, hallucinations and thinking disorders is difficult and complicated in children with linguistic impairment. The assessment of psychotic symptoms in very young children to determine whether these symptoms are initial signs of psychosis or autism or pervasive developmental disorder is another difficulty (Watkins, Asarnow & Tanguay 1988). Mood disorders such as major depression and acute mania are often associated with psychotic symptoms. Symptoms are similar to those in the child's schizophrenia. Approximately half of adolescents with bipolar disorder are diagnosed as schizophrenia. In mania child can have delusions that he is a superman with special powers like possibilities to fly and jump over the high places or hear voices which are congruent with increased mood and may have beliefs about own superiority or ability to do anything.

Children may abruptly develop psychotic symptoms which can last for several hours to a few days. The child experiences this when is under tremendous and terrible stress (death in the family, the witness of violence, physical or sexual abuse). Acute psychotic symptoms are often resolved fast with complete recovery within a few days. Children may suddenly become disorganized, confused, agitated or are withdrawn. At the same time their speech becomes meaningless and incomprehensible.

Children with a history of abuse can have psychotic symptoms while psychotic-like symptoms may occur in children with PTSD. In those states, psychotic symptoms are intrusive thoughts or concerns about the traumatic event. Examination will show a lack of formal thinking disorders and frequent occurrence of phenomenon of derealisation and depersonalization in children with PTSD (Read et al. 2005).

The toxic psychosis can appear as the secondary state in bacterial or viral infections, high temperatures, as well as in states caused by toxic effects of some substances like medication, drugs, alcohol or poisons. This type of psychosis is often accompanied by the appearance of visual and tactile hallucinations and other problems of perception. Auditory hallucinations could be observed but their quality is different ranging from children's schizophrenia. They are frightening and this state is often associated with agitation, uncontrolled or even aggressive behavior. Children frequently describe that experience like "losing the mind" and could be dissociated, unable to orient or behave strangely.

TREATMENT

Treatment of psychotic disorders is focused on clinical symptoms and co-morbid disorder or psychosocial stress. Assessment includes a detailed evaluation of present symptoms, course of illness, history of child development and family history of psychiatric illness. Also, important are neurological examination, EEG, toxicological analyses and laboratory tests. Psychological evaluation and use of projective techniques are useful in determining developmental delays because these deficits may influence on the presentation or interpretation of symptoms. Appropriate treatment requires the combination of pharmacotherapy and various psychosocial interventions, which are aimed on children's specific difficulties (Remschmidt et al. 2001, Courvoisie, Labellarte &, Riddle 2001). First drugs choices for psychotic disorders are antipsychotics primarily those of the new generation due to their higher efficacy and less side effects (Remschmidt et.al. 2000, Grothe et al. 2000). Psychosocial interventions include working with parents and child and are focused on family functioning, problem solving, communication skills and prevention of relapse.

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