

Early Onset Schizophrenia

What is schizophrenia?

Schizophrenia is a major psychiatric illness. Symptoms usually begin in late adolescence or early adulthood. Numerous studies have found that about 1 in every 100 people around the world has the disorder. However, schizophrenia with an onset in adolescence (prior to age 18) is less common, and an onset of the disorder in childhood (before age 13) is exceedingly rare. It is thought that at most one in every 100 adults with schizophrenia develops it in childhood.

Symptoms and Diagnosis

In both adults and children, the symptoms of schizophrenia can be divided into two broad categories -- positive symptoms and negative symptoms.

- Positive symptoms include: hallucinations, usually voices which are critical or threatening; delusions, which are firm beliefs that are out of touch with reality and which commonly include the fear that people are watching, harassing, or plotting against the individual; disorganized speech, which is often seen as an inability to maintain a conversation, usually as a result of difficulty staying on topic; or, disorganized or catatonic behavior, which can include behavior that is unusual and bizarre, or can be demonstrated by difficulty planning and completing activities in an organized fashion.
- Negative symptoms include: reduction in emotional expression; lack of motivation and energy; or, loss of enjoyment and interest in activities, including social interaction.

Schizophrenia is diagnosed by the presence of two of the symptoms described above. For a diagnosis of schizophrenia, two of these symptoms must be present for at least 6 months and must be accompanied by increased difficulty in daily living in areas such as school, friendships, and self-care.

Hallucinations or delusions in a child should lead to an evaluation by a mental health professional who has experience working with children and adolescents with mental

health disorders. A diagnosis of schizophrenia is made through an interview with the child and parents using information obtained from them and from school personnel.

Difficulties in diagnosing schizophrenia

Many of the symptoms seen in people with schizophrenia are also found in people with depression, bipolar disorder, or other illnesses. As a result, studies have found that misdiagnosis is common. This is particularly true with children and adolescents. As such, it is extremely important to rule-out other diagnoses such as depression, bipolar disorder, and substance use before making a diagnosis of schizophrenia.

An additional difficulty in making a diagnosis in children and adolescents relates to the fact that hallucinations are surprisingly common and, in fact, are most often seen in children and adolescents with diagnoses other than schizophrenia. In a large study at the National Institutes of Health, the great majority of those previously diagnosed with schizophrenia did not receive that diagnosis following careful evaluation. In many children with other conditions, the nature of the hallucinations is different. While hallucinations in people with schizophrenia are often pervasive when not well treated, many children with other conditions such as mood disorders and dissociative disorders, report auditory hallucinations when they are under stress. These hallucinations tend to be brief and very intermittent (lasting for only a few minutes). Also, children are very susceptible to leading questions and therefore should be asked about symptoms in a neutral fashion (i.e., not "Do you hear voices?").

Children with pervasive developmental disorders (autism, Asperger's disorder, or an unspecified pervasive developmental disorder) often have social difficulties, disorganized behavior and language impairments. These developmental disorders can be confused with a diagnosis of schizophrenia.

Prognosis of early onset schizophrenia

The outcome for children with schizophrenia varies greatly and some individuals function well with medication. Earlier onset is often associated with a poorer outcome when it interferes with attending school and completing an education. However, because children typically live at home with the combined social environments of family and school, symptoms are often recognized early. This fact is significant because recent studies have suggested that earlier treatment may reduce the decline in functioning and long-term impairments commonly associated with schizophrenia. As such, accurate and early intervention and diagnosis are critical.

Treatment for schizophrenia

Treatment for schizophrenia includes biological, educational, and social interventions. Medication is the cornerstone of the treatment of schizophrenia, but should be viewed as a means to facilitate psychological and social interventions. Treatment with only

medication is not as effective as medication therapy combined with other forms of treatment.

The medications used to treat schizophrenia are termed "anti-psychotics" or "neuroleptics". Although these medications are often effective, they have been associated with significant side effects. The last decade has seen the introduction of a number of new anti-psychotics with reduced side effects. The most commonly used medications used now are: risperidone (Risperdal), olanzapine (Zyprexa), and quetiapine (Seroquel). Other medications include haloperidol (Haldol), thioridazine (Mellaril), and chlorpromazine (Thorazine). For individuals who are not responsive to the previous trials of anti-psychotics, including olanzapine, clozapine (Clozaril) is an important option for children and teenagers, but is not used as a first treatment due to significant side-effects (see below). For some children with refractory psychosis, clozapine proves to be the only medication that helps. We have been able, with careful monitoring, to manage side effects in our children on clozapine, should side effects occur. It is also important that associated symptoms be recognized and treated appropriately. For example, individuals with schizophrenia who develop depression or anxiety should be treated for these symptoms.

Children and adolescents with schizophrenia often need adjustments to their educational programs. Typically this would include smaller classrooms with teachers who are experienced with children and adolescents with psychiatric disorders. Their academic work may also need to be modified in order to accommodate problems sometimes associated with schizophrenia such as reduced concentration and attention.

Social difficulties are commonly seen with early onset schizophrenia. These include difficulty making and keeping friends, difficulty with interpersonal interactions, and low frustration tolerance. Activities to develop social skills is integral to the treatment of schizophrenia. In addition, family therapy and education about schizophrenia may help family members to cope with the child's illness.

Common side effects of anti-psychotic medications

Every youth will have a different reaction to any medication--be it an antibiotic or an anti-psychotic. Nonetheless, the most common problem that children and adolescents report when taking the new generation of anti-psychotic medications (olanzapine and risperidone, for example) is weight gain. This can be problematic because teens are particularly sensitive about how they look. Common side effects of the older class of antipsychotics, such as the more commonly-used and less expensive haloperidol (Haldol), include drowsiness; and neuroleptic side effects such as acute extrapyramidal side effects and tardive dyskinesia. Approximately 1% of those taking clozapine (Clozaril) will develop a serious side effect called agranulocytosis; thus, regular monitoring of blood levels is essential.

Research and new treatments

Much research and development of new medications for schizophrenia is underway. Some promising medications have very different mechanisms of action and so may be more effective with fewer side effects. However, the process of drug development and approval is slow and many of these medications are only currently available in research studies. Several centers around the country are involved in research with these new medications.

Reviewed by Julia Tossell, MD September 2003