

Clinical Profile of Childhood Onset Schizophrenia in India*

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ABSTRACT

Introduction

In view of the rarity of schizophrenia in children and differences in manifestation across cultures, an investigation was carried out to look into the clinical profile of schizophrenia in children in Varanasi, India (Eastern Pradesh).

Method

30 patients meeting the criteria for schizophrenia (ICD 10) were selected from the child Guidance Clinic of the University Hospital, BHU, Varanasi. Details of demographic data, psychiatric history, and physical & mental status examination findings were recorded on a structured proforma. The intellectual level of the patients was assessed by a battery of psychological instruments. Evaluation of patients was done on the KIDDIE-SADS-PRESENT EPISODE for the symptoms of the present episode. Relevant investigations such as EEG, CT scan of brain, hormonal assays were carried out.

Results

The mean age of the patients was 10.8 years (range 4-16 years). 60 % were males, 63% has rural / semiurban domicile, 80 % were from middle class socioeconomic class and 73 % were educated till 5th standard. Past history of major physical illness was recorded in 33 % of the cases. There was co-morbid psychiatric illness in 10 cases; mental retardation, 8; epilepsy 2). Family history of psychiatric illness was recorded in 6 first degree relatives (schizophrenia, 2; psychosis NOS, 2; suicide, 1; and epilepsy, 1). There was past history of psychiatric illness in 2 cases (schizophrenia, 1; cannabis induced psychosis, 1). The onset was acute in 50 % of the cases. The mean duration of illness was 1.18 years (range 1 month to 4 years). The symptoms of the present episode were emotional disturbance (inappropriate affect, fearfulness, anger, suspiciousness, crying, lability and blunt affect) in 15 cases, bizarre behaviour in 14 cases, disturbance of motor behaviour (increased activity, decreased activity and stereotypy) in 14 cases, formal thought disorder (derailment, incoherence and neologism) in 10 cases, delusions in 6 cases, and hallucinations (auditory, visual and tactile) in 5 cases. Abnormal EEG was reported in 5 cases and diffuse brain atrophy in the MRI brain scan of one patient

Key words: Childhood, Schizophrenia, Psychosis, Early, Varanasi, India, Clinical Profile

Introduction

The vast bulk of schizophrenia research has excluded children and younger adolescents. However, over the past decade research activity in child and adolescent schizophrenia has been sparked by several factors. First, awareness of the greater

clinical severity of schizophrenia in childhood and adolescence and the possibility of greater etiological liability have encouraged researchers to investigate genetic and neurobiological correlates in very early onset cases (Zahn et al, 1977). Second, the emergence of a 'neurodevelopmental' formulation of schizophrenia (Weinberger, 1987) and the perspective of developmental psychopathology (Hollis & Taylor, 1997) have focussed more attention on early developmental processes and the premorbid childhood course of schizophrenia from 'birth to onset' (Chapman & Chapman, 1984)

Schizophrenic disorders in childhood are rare with 1 in 10,000 children developing a schizophrenic disorder. Only 0.1 % to 1.0% of all schizophrenic disorders manifest before age 10 years, and 4% before age 15 years (Remschmidt, 2000). The pattern of psychotic disorders in children aged up to 15 years attending the Child Guidance Clinic, at Post Graduate Institute of Medical Education and Research, Chandigarh, was studied by Malhotra and Chaturvedi (1984). Childhood psychotic disorders were found to be infrequent (2.4%).

In view of the above limitations and dearth of literature from developing countries on childhood schizophrenia, the present study is conceived with the aim of studying the clinical profile of schizophrenia in children in Varanasi, India (Eastern Pradesh).

Material and Method

30 patients meeting the criteria for schizophrenia International Classification of Diseases (ICD 10) (World Health Organisation, 1992) were selected from the Child Guidance Clinic of the University Hospital, Banaras Hindu University (BHU), Varanasi, INDIA. Patients up to the age group of 16 years have been included. Details of demographic data, psychiatric history, and physical & mental status examination findings were recorded on a structured proforma. The intellectual level of the patients was assessed by a battery of psychological instruments; Bhatia Battery of Tests of Performance, Ravens Coloured and Standard Progressive Matrices, Sequin Form Board Test, Vine Social Maturity Scale (Malin's Adaptation) and Indian adaptation of Weschler's Intelligence Scale for Children.). Evaluation of patients was done on the KIDDIE-SADS-PRESENT EPISODE (Puig-Antich & Chambers, 1986) for the symptoms of the present episode. Relevant investigations such as EEG, CT scan of brain, hormonal assays were carried out.

Results

Sociodemographic Characteristics:

The mean age of the patients was 10.8 years (range 4-16 years). 60 % were males, 63% has either rural or semi-urban domicile. Only 27 % hailed from urban areas 80 % were from middle class socioeconomic status (SES), with per capita income between Rs 500 and Rs 1000/ month. 20% of the cases belonged to poor SES with percapita income below Rs 500/ month. The vast majority (73%) were educated between 0 to primary level (5th standard). The remaining had education between 6-10th standard.

Clinical features:

Past history of major physical illness was recorded in 33 % (N=10) of the cases (acute febrile illness, 6; ear discharge, 2; bronchopneumonia, 1; and head injury, 1).

There was co-morbid psychiatric illness in 10 cases: mental retardation, 8; and epilepsy 2. Family history of psychiatric illness was recorded in 6 first degree relatives (schizophrenia, 2; psychosis NOS, 2; suicide, 1; and epilepsy, 1). There was past history of psychiatric illness in 2 cases (schizophrenia, 1; and cannabis induced psychosis, 1). The onset was acute in 50 % of the cases. In remaining cases it was either subacute or insidious). The mean duration of illness was 1.18 years (range 1 month to 4 years). The mean age of onset of illness was 8.6 years (range 4-15 years)

Symptomatology:

Emotional disturbance (N=15) and bizarre behavior (N=14) were common and present in almost half of the patients. Inappropriate affect, fearfulness, anger, suspiciousness, excessive crying, lability of mood and blunt affect were the emotional abnormalities. Disturbance of motor behaviour occurred in 14 cases in the form of increased activity, decreased activity and / or stereotypy). Formal thought disorder was observed in 1/3 of the patients in the form of derailment, incoherence and/ or neologism) in 10 cases. Delusions and hallucinations were the least frequent symptoms. Delusions could be elicited in 6 cases. Thoughts relating to fantasy and dreams were more common. Hallucinations (auditory, visual and tactile) were reported in 5 cases. Pseudo hallucinations and imageries were seen to be more frequent.

Investigations:

Abnormal EEG was encountered in 5 cases; 4 showed generalized seizure disorder (GSD) and one showed GSD with bifrontal slowing. Diffuse brain atrophy was evident on the MRI brain scanning in one patient

Discussion

This investigation has made a modest attempt to study the clinical profile of schizophrenia in children and adolescents (aged 4 to 16 years) presenting at a teaching hospital (University Hospital, Banaras Hindu University) in Eastern Uttar Pradesh (Varanasi). This is the first study from eastern Uttar Pradesh that has specifically targeted children with schizophrenia

Majority of the cases were males, with low level of education from low socioeconomic status. Preponderance of males in his sample is in keeping with reports of schizophrenia being more common in amongst boys compare to girls (Renschmidt, 2000). The University Hospital caters to a vast population hailing from eastern Uttar Pradesh, Bihar, southern Madhya Pradesh and even Nepal. The population has a low level of education, and is economically and socially under privileged. Further, female children are often not brought to the hospital or may be brought late when they become adolescents. Further work involving a control group is required to determine the significance of the socio-demographic features.

Multifactorial issues are commonly encountered in childhood psychotic disorders-genetic influences, environmental factors and family influences. In addition, there is often a history of prenatal, peri-natal or postnatal hypoxia (Tolbert, 1996). In the present enquiry past history of major physical illness and co-morbid medical illness (mental retardation and epilepsy) was present in a substantial proportion of cases; 10

cases in each group. Besides, 5 patients showed abnormal findings on neurophysiological investigations. 5 patients had grossly abnormal EEGs and one showed diffuse brain atrophy in the MRI brain scan. These findings suggest that organic factors may have etiological significance in childhood schizophrenia. This does require further investigation.

When the pattern of symptoms was examined emotional disturbances such as inappropriate affect, lability of emotions, anger, fear and excessive crying and blunt affect were fairly common, being present in 50% of the cases. This was followed by bizarre behaviour.

Formal thought disorder was encountered in about one third of the cases. It may be mentioned that disorganized speech, rather than formal thought disorder, as one of the diagnostic criteria may pose a particular problem when assessing a child, given that disorganized speech is an inherent component of many of the developmental disorders and these must be considered in the differential diagnoses (Santosh, 2005).

Delusions and hallucinations were infrequent. They were present in only 1/5 and 1/6 of the cases respectively and were poorly organized. The low frequency of delusions and hallucinations may be explained by the fact that children and adolescents may not be able to describe their psychotic symptoms well. It is thus necessary to learn their language and communicate with their level (Tolbert, 1996). Some of the children expressed thoughts which were either fantasy or those they could recall from dreams.

The symptoms presented by patients namely emotional disturbances, bizarre behavior, formal thought disorder, disturbances of motor behaviour, delusions and hallucinations are also the symptoms commonly encountered in adult patients with schizophrenia. Thus children share with their adult counterparts many of the symptoms. However, the significance of sub threshold symptoms such as ill-formed hallucinations and thoughts relating fantasy and dreams require attention. Although many cases of schizophrenia can be diagnosed in children using adult criteria, it is possible that some cases are missed, especially those having sub threshold symptoms.

Certain clinical features in children and adolescents create diagnostic dilemmas. In particular, distinguishing true psychotic symptoms in children from non-psychotic idiosyncratic thinking and perceptions caused by developmental delays, exposure to traumatic events and /or overactive imaginations is a challenge (Santosh, 2005). Longitudinal study of patients with subthreshold symptoms would throw light in this direction. Also, developmental issues need to be addressed.

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