

Clinical Profile of Early Onset Schizophrenia: A Review of 43 Cases

Volume: 14 Issue: 02 April 1996 Page: 93-98

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Reprints request

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Abstract

The phenomenology of early onset schizophrenia (EOS) is not as well established as that of adult onset disorder, though a few studies have identified hallucinations, delusions, though disorder, inappropriate affect and flattened affect as common symptoms. Moreover, there is no data from the Indian setting. This study reviews the clinical charts of subjects with diagnosis of EOS ((16 years) using ICD-10 DCR and analyses the clinical profile in comparison with the existing literature. The charts were of those subjects who were registered in the Child and Adolescent Psychiatry (CAP) Clinic of National Institute of Mental Health & Neuro Sciences (NIMHANS), Bangalore, South India. Of the 93 charts with diagnosis of schizophrenia, 43 fulfilled ICD-10 DCR criteria for schizophrenia and formed the sample of the study. The sample consisted of 17 male and 26 female subjects with the mean age of 15.05 ± 1.41 years. There was no statistical significance across the sexes regarding the age at presentation, the age at onset of illness and the duration of illness. The delusions of persecution (72.09%) were the most common symptoms, followed by inappropriate affect (69.76%), non-affective auditory hallucinations (58.13%), delusions of reference (46.51%), and negative symptoms (46.51%). The paranoid and the undifferentiated schizophrenia were the common subtypes. Phenomenologically, the population resembled other studies in having both positive and negative symptoms. The sample differed from other studies by the absence of bizarre delusions and low rates of formal thought disorder and hallucinations in modalities other than auditory.

Key words -

Schizophrenia,
Phenomenology,
Early onset

Early work on schizophrenia in childhood was considered identical to adult disorder, though developmentally determined variations in symptomatology was acknowledged [1], [2]. Though Kanner [3], recognised childhood schizophrenia as a diagnostic entity distinct from infantile autism, other workers [4], [5], [6] held that they were the same disease. It was the influential work of Kolvin and colleagues [7], [8] and Rutter [9] which established autism and schizophrenia as separate disorders. This view is reflected in the major classificatory systems currently in use [10], [11], [12], [13], [14].

Though the phenomenology of early onset schizophrenia (EOS) is not as well established as that of adult onset disorder,

several workers [15], [16], [17], [18], [19], [20] have attempted to study the phenomenology using operational criteria and have identified hallucinations, delusions, thought disorder, inappropriate and flattened affect as common symptoms. These symptoms are similar to those reported in Kolvin et al's [8] study. Regarding the age of onset, it is reported that schizophrenia rarely occurs before 12 years of age. The rate increases during adolescence to achieve adult rate [21]. EOS occurs predominantly in males, with ratios of approximately 2:1 and during adolescence, this ratio tends to even out [8], [16], [17], [18], [20], [22]. EOS generally has an insidious onset [8], [17], [22]. Reports vary as to whether the paranoid subtype [23] or undifferentiated subtype [20], [24] is more common.

It is evident from this review, that most of the work on childhood schizophrenia is from the West and there are not studies from India. This study reviews the clinical charts of early onset schizophrenia subjects (age of onset (16 years), analyses the clinical profile and compares the findings with those of other studies.

Methods

The clinical charts of all the subjects aged upto 16 years, with a diagnosis of schizophrenia according to ICD-9/ICD-10 [10], [11] were systematically evaluated. The charts earlier to 1992 were coded according to ICD-9 [10] definition of schizophrenia and subsequently according to ICD-10 criteria [11]. These subjects were registered in the Child and Adolescent Psychiatry (CAP) clinic of National Institute of Mental Health & Neuro Sciences, (NIMHANS), Bangalore, South India, during 1985 to 1989 and 1991 to Oct. 1994. The subjects registered during the year 1990 formed the sample of a prospective study [25], and hence were excluded from this study. The CAP clinic caters to patients from infancy upto age 16 years. The patients are referred to CAP clinic after initial screening by a qualified psychiatrist in the outpatient clinic of NIMHANS. All the patients undergo a detailed clinical evaluation according to a prespecified topical format, using an unstructured psychiatric interview [26] by postgraduate residents in psychiatry, who subsequently discuss it with the consultant child psychiatrist on duty and arrive at a consensus diagnosis. These detailed clinical evaluations are called clinical charts.

In all, 93 charts with diagnosis of schizophrenia were evaluated using ICD-10 Diagnostic Criteria for Research (DCR) [27]. From among the 93 charts, every sixth chart (15 charts) was reviewed and diagnosed independently by two qualified psychiatrists (YCJ, VS) (with an experience of more than a year in child and adolescent psychiatry) blind to each other's diagnosis. There was a good diagnostic agreement ($Kappa=0.72$) between the raters in diagnosing schizophrenic and non-schizophrenic disorders using the ICD-10 DCR. Those charts that satisfied ICD-10 DCR criteria for schizophrenia formed the sample of the study. Exclusion criteria included, change of diagnosis, infantile autism, mental retardation, epilepsy and other neurological and medical conditions which could explain the psychiatric manifestations. The onset of illness was considered acute if, from a non-psychotic state, schizophrenic symptoms manifested in less than 2 weeks. Of the 93 charts with the original chart diagnosis of schizophrenia, 43 fulfilled the ICD-10 DCR criteria for schizophrenia and formed the sample of this study. Thus, fifty charts were excluded from the sample. Of these, thirty four charts did not have the required characteristic ICD-10 DCR criteria symptoms for diagnosis of schizophrenia. Six charts were excluded as they fulfilled criteria for affective disorders (mania). Two charts with additional diagnosis of infantile autism were also excluded. Of the remaining eight charts, seven were dropped from the sample as duration of the illness was less than one month, and one chart had additional diagnosis of epilepsy.

Results

The sample (n=43) consisted of 17 male and 26 female subjects in the age range of 10-16 years (Mean 15.05 ± 1.41 and there was no statistically significant difference between sexes ($X^2=1.88$, $df=1$, $p=0.1699$). The mean age at presentation of male and female subjects was 14.94 ± 1.56 and 15.12 ± 1.34 years respectively, and there was no statistical significance between the groups ($t=0.39$, NS). The diagnosis of schizophrenia before the age of 12 years occurred in only 2 subjects. The mean age of onset for males was 13.64 ± 2.49 years and for females 14.28 ± 1.53 years. There was no statistically significant difference between the two groups ($t=0.94$, NS). Insidious onset of illness was recorded in all, but 13 subjects. The mean duration of illness was 12.28 ± 17.53 months. For males, mean duration of illness was 15.65 ± 25.58 months and for female subjects, 10.12 ± 9.17 months ($t=0.856$, NS), Sixteen subjects (37.20%) were hospitalized for treatment and the mean duration of hospital stay was 48.87 days.

Table 1 - Symptom profile of early onset schizophrenia

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The phenomenological analysis was made according to ICD-10 DCR. As noted in Table I, the delusions of persecution was the most common symptom (72.09%), followed by inappropriate affect (69.76%), non-affective auditory hallucinations (58.13%), delusions of reference (46.51%) and negative symptoms (46.51%). Twenty one (48.83%) subjects received diagnosis of paranoid schizophrenia, 13(30.23%) the undifferentiated type, 6 (13.95%) the catatonic type, 2(4.65%) the hebephrenic type, and the other (2.3%), the unspecified type.

Discussion

To put the findings of this study in perspective, it is important to compare and contrast with the findings of previous studies of EOS. Diagnosis of schizophrenia before the age of 12 years occurred in only 2 subjects and is in accordance with the English language studies [21] who reported rare occurrence of the disorder before age 12 years. EOS generally has an insidious onset [8], [22] and in young adolescents both acute and insidious onset are noted [8], [17], [20], [24]. In this study the onset of illness was insidious in all but 13 subjects. But, the previous studies [8], [20], [24] defined acute onset as less than one year making it difficult to compare the types of onset across studies. In this study, as mentioned earlier onset of illness was considered acute if, from a non-psychotic state, schizophrenic symptoms manifested in less than 2 weeks.

Phenomenologically (Table I), the population resembled other studies [15], [16], [17], [18], [20]) in having both positive and negative symptoms. The symptom profile also resembled the general description of adult onset schizophrenia in having inappropriate affect, prominent delusions and hallucinations and negative symptoms. Though there is a similarity in the clinical profile across studies, there are certain differences. Bizarre delusions did not occur even in one subject compared to the frequencies in other studies. McKenna et al [17] reported bizarre delusions in nearly 79% of the

sample and Russel et al [18] in 17% of the sample. The rate of formal thought disorder was low (14%) compared to the higher, but varying (40-100%) frequencies in other studies [8], [15], [17], [18]. There are several possible reasons for these apparent differences across the studies. The first is the interpretation variance. Andreasen [28] has pointed out that definitions of "thought disorder" vary greatly. A second possible problem alluded to previously, is that DSM-III (used in Russel et al's [18] and Green et al's [15] study) required a severity distinction that was not operationally defined. In this study, the problem is further compounded by having to rely on information in charts. Of course, the varying frequencies of thought disorders may indeed have shown real differences across the samples. The other difference was the relatively low rate (16%) of visual hallucinations compared to high frequencies (30-79%) in other reports [8], [15], [17], [18]. Tactile and olfactory hallucinations were reported in only 5% of subjects, which is comparable to frequencies in Kolvin et al's study [8], but McKenna et al [17] in their recent study have reported tactile and olfactory hallucinations in 36% and 21% of subjects respectively. Nearly half of the sample received diagnosis of the paranoid subtype, and this is in accordance with another study [23] which reported the paranoid subtype to be more common. In summary, the clinical profile of the sample is similar to other studies, though not identical. Bizarre delusions, formal thought disorder and visual hallucinations were not common symptoms in this sample compared to literature from the West. Yet, caution is necessary in interpreting the findings of this and other studies due to the problem of circularity. Youngsters with delusions, hallucinations, negative symptoms and inappropriate affect were identified because those symptoms formed the selection criteria. More research is required to establish the extent to which these symptoms are characteristic of schizophrenia or occur in children with other disorders such as affective disorders, schizoaffective disorders and atypical psychotic disorders. Psychotic features have been reported in affective disorders [20], [24], [29], [30].

The limitations of this study are, it is a retrospective study without control groups such as, adult onset schizophrenics and other childhood and adolescent disorders with psychotic symptoms. More systematic research is required to establish the clinical profile of early onset schizophrenia and other child and adolescent disorders with psychotic symptoms.

Acknowledgement

The authors wish to acknowledge the help of Dr. K M R Prasad, Senior Resident, Department of Psychiatry, NIMHANS, Bangalore, in preparation of the manuscript.

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