

## LATE ONSET SCHIZOPHRENIA VERSUS EARLY ONSET SCHIZOPHRENIA : A COMPARISON OF CLINICAL FEATURES

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### ABSTRACT

*Patients of late onset schizophrenia (LOS) (13 subjects), early onset schizophrenia (EOS) current age above 40 years (15 subjects) and early onset schizophrenia (EOS)- current age at or below 40 years (15 subjects) were compared. The LOS group differed from the two EOS groups only in having higher score on the item 'persecutory delusions'. The findings do not support the diagnostic validity of LOS.*

*Key words : Schizophrenia, onset, clinical features, subtype*

Schizophrenia has traditionally been seen as a disorder of early adulthood. Feighner's criteria (Feighner et al., 1972) and the French Empirical Criteria (Pull et al., 1987) set an upper age limit at 40 years for the diagnosis of schizophrenia; and the DSM-III, at 45 years. Early studies (Gold et al., 1984; Mayer et al., 1993) supported the distinction between schizophrenia of early onset and schizophrenia like illness of late onset. Pearson et al. (1989) and Jeste et al. (1995) concluded on the basis of methodologically rigorous studies, that the similarities between LOS and EOS outweigh the differences. The present investigation was conducted to place more empirical data on the above mentioned question.

### MATERIAL AND METHOD

#### Sample

One hundred and fifty three consecutive patients of schizophrenia (DSM-III-R) recruited for a prospective study (ICMR funded) on 'phenomenology of schizophrenia' formed the universe for the present study. For the purpose of this report (a departmental study) three sub-samples were identified from this universe.

The diagnosis of schizophrenia made in the ICMR study was retained, but a decision was taken to use 40 years as the cut off age for LOS rather than the 45 years recommended in the DSM-III-R. This was because of the following reasons: i) a 40 years cutoff (the strictest one recommended by authorities) maximizes the chances of discriminating schizophrenia from late onset psychosis in which organic factors are hypothesized to play a role, ii) two of three diagnostic systems using age cut off have recommended this cut off (Feighner et al., 1972; Pull et al., 1987), and iii) the French empirical criteria is based on the opinion of a nation-wide sample of practising psychiatrists (Pull et al., 1987). The age of onset was determined by interviewing the patient/relatives and checking medical/administrative records if available. Patients were excluded from LOS group if they had a history of any of the following before 40 years: i) prodromal symptoms of schizophrenia, ii) treatment with neuroleptics and iii) psychiatric hospitalization.

The LOS group consisted of all the 13 patients in the original sample who fulfilled our criteria for late-onset schizophrenia. Two control groups consisting of patients with an age of onset below 40 years, one currently above the age of

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40 (EOS-I) and the other below 40 years (EOS-II) were also selected. The EOS-I group consisted of all 15 patients who met the criterion for inclusion in that group, while the EOS-II group comprised of 15 subjects selected randomly from the remaining 125 patients.

**Measures**

Demographic information was noted. Clinical information was obtained with the help of Scale for Assessment of Positive Symptoms (SAPS) and Scale for Assessment of Negative Symptoms (SANS) (Andreasen & Olsen, 1982), Hamilton Depression Rating Scale (HAM-D) (Hamilton, 1967) and Global Assessment Scale (GAS) (Endicott *et al.*, 1976).

**Statistical Analyses**

The three groups were compared on each of these variables with Kruskal-Wallis analysis of variance (ANOVA) and chi-square analyses followed by appropriate pair-wise comparisons.

**RESULTS**

The average age of patients in the LOS group was 47.7 years. The modal LOS patient was a woman (75%), who was "currently" married (75%), had studied till high school (70%), was unemployed

(92%), came from a low-income family (85%) and was from an urban background (75%).

The LOS group was older and had a later age of onset compared to the EOS groups (table). The EOS-I group had an illness of longer duration in comparison to the LOS and EOS-II groups (table).

No significant differences were noted on gender, marital status, education, employment, personal and family income, place of residence and religion; type of onset, type of course and family history of schizophrenia. Comparison on 61 psychometric variables revealed difference on one variable only - the LOS group had a significantly higher score compared to the two EOS groups on the SAPS item : persecutory delusions (table).

**DISCUSSION**

Previous reports have often noted that LOS groups had significantly more female patients and married patients than EOS groups (Pearlson *et al.*, 1989; Jeste *et al.*, 1995). A statistically significant difference on these parameters was not noted in the present study. In India, since "arranged" and early marriages are the norm, it is understandable that most of the patients in all three groups were married. Early marriage

TABLE  
COMPARISON BETWEEN LATE ONSET SCHIZOPHRENIA AND EARLY ONSET SCHIZOPHRENIA ON  
SELECTED SOCIO-DEMOGRAPHIC, CLINICAL AND PSYCHOMETRIC VARIABLES

| Variable                                     | LOS (I)<br>n=13 | EOS (II)<br>n=15 | EOS-Y (III)<br>n=15 | Statistic<br>F/H/X <sup>2</sup>                       | Significant<br>(p<0.05) Pairwise<br>comparison |
|--|-----------------|------------------|---------------------|---|--|
| <b>FAMILY TYPE</b>                           |                 |                  |                     |   |  |
| Nuclear                                      | 12              | 8                | 12                  | X <sup>2</sup> =5.93<br>df=2<br>(p<0.1) <sup>NS</sup> |  |
| Joint  | 1               | 7                | 3                   |   |  |
| <b>AGE</b>                                   | 47.7±5.1        | 43.5±4.8         | 27.5±6.3            | F=54.9<br>df=42                                       | I>II>III*                                      |
| <b>AGE of ONSET</b>                          | 44.9±5.2        | 30.7±6.9         | 23.4±6.1            | F=44.3<br>df=42                                       | I>II, III*                                     |
| <b>DURATION</b>                              | 2.6±2.9         | 12.8±9.8         | 3.9±4.6             | H=13.2*<br>df=2                                       | II>I, III*                                     |
| <b>PERSECUTORY<br/>DELUSION (SAPS)</b>       | 3.2±1.5         | 1.3±1.8          | 1.7±1.8             | H=6.95*<br>df=2                                       | II, III*                                       |
| <b>AUDITORY<br/>HALLUCINATION<br/>(SAPS)</b> | 2.7±2.0         | 0.9±1.6          | 1.7±1.8             | H=5.6 df=2<br>(p<0.1) <sup>NS</sup>                   |  |

\* p<0.05; NS= Not Significant; a = Student's t-test; b = Mann-Whitney Test

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increases the chance of marriage before a psychotic breakdown and "arranged" marriage even after such a breakdown. Jeste et al.(1995) have noted the problems in commenting on gender differences in clinical samples because of the possibility of sampling biases.

Late age of onset has been reported to be associated with paranoid-hallucinatory symptoms (Pearlson et al.,1989) and to the paranoid subtype of schizophrenia (Pearlson et al.,1989, Jeste et al.,1995). The present study provides part support to this finding in demonstrating significant difference between the LOS group and the two EOS groups on persecutory delusions and a trend ( $p<0.1$ ) in the same direction on auditory hallucinations (table).

Pearlson et al.(1989) had reported that thought disorder and negative symptoms occurred to a significantly lesser degree in the LOS group. This was not seen in the present study. Support for our findings come from the only other prospective study on LOS (Jeste et al.1995).

The study had a number of limitations. The sample size was small and based on an already existing cohort of patients (which may not be representative of schizophrenia population), the age and age of onset could not be verified by administrative/medical records in most cases; and treatment effects were not evaluated. The results of the study cannot be generalized to untreated samples as all subjects were receiving routine clinical care. So, it is possible that treatment might have led to the lack of significant differences in psychopathology in the three groups.

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