Early Vs Late-Onset Depression A Clinical Study

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A group of patients with unipolar major depressive illness (n=88) was studied to clarify the concept of early and late-onset depression. Results showed that older age was associated more with higher incidence of double depression and psychotic features, while early-onset depression was more associated with suicidal and obsessive symptoms. Social evaluation of both groups showed higher incidence of persistent stressors and early unfavourable family and home atmosphere for the early-onset group, but recent stressors were more pronounced in late-onset group. No significant difference was found between both groups as regards personality makeup or adjustment scale scores.

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Introduction

It now appears that the prevalence of depression is reaching epidemic proportions. In 1971 Lehman reported that there are almost 100 million people in the world who are suffering from some form of clinicaly recognizable depression. By 1988 Okasha admitted that each year at least 120 millions in the world develop clinically recognizable depression and for several reasons the number is likely to increase.

Clinicians and researchers agree that depression has many nosologic subdivisions. Using the parameter of "age at onset", depressed patients could be classified accordingly to those with early onset of depressive symptoms vs. the late onset group.

Post (1968) and Brown et al (1984) observed that patients with first episode at 50 years of age or later, were more likely to have hypochondriacal ideation, early insomnia, agitation, grandiose delusions and preoccupation with guilt than patients with earlier onset of illness. However, Alexopoulos et al (1984) failed to find any difference in distribution of Research Diagnostic Criteria (RDC) for depression subtypes between early and late onset cases.

Later, Burvill et al (1989) comparing early and late onset elderly depressives, found that both groups showed the full range of severity of depression but the late onset group as a whole was clearly less severely depressed than the early onset group. A finding which was not confirmed by Green and Ginsberg (1988) who could not find any difference between the two groups. Many other dif-

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ferences were found, where Price et al (1987) pointed to an increased risk of depressive illness in family members of early onset as compared to late onset patients, while Cole (1983) and McGlashan (1989) concluded that late onset patients have a better premorbid personalities. Bland et al (1986) observed that the lowest morbidity risk in the relatives was associated with single episode of depression and late age at onset. Also the highest risk was found with early age at onset and recurrent depression. The authors reported that these findings offer a subclassification of unipolar depression based on age at onset of depression.

Aim of the work

Clinically there seems to be subgroups within patients with major depression. Using "Age at Onset" of first depressive symptoms as a dimension, two groups could be identified.

This work is an attempt to delineate the differences between patients with early onset depressive illness and those with late onset as regards, the severity of depression, underlying personality structure, family history, effect of psychosocial stressors and the degree of premorbid adjustment. It is a trial to answer the question, is there a clinical justification to distinguish late onset from early onset depression?

Subjects and Methods

Major depressive patients (unipolar type) diagnosed according to DSM-III-R (APA 1987) criteria were selected by consecutive referral from staff members in psychiatry departement Kasr El-Aini Hospital. They were grouped according to age at onset of their depressive illness into two groups:

(I) Late-onset group: it included 37 unipolar depressive patients with age range between 40-72 years and with age at onset of their first depressive episode between 39 and 68 years.

(II) Early-onset group: it included 51 unipolar depressive patients and were further subdivided according to their age into:

* **Group (A)** : included 33 patients with age range from 15 - 32 years and age at onset of their first depressive episode between 12-30 years. (Young Group)

* **Group (B)** : included 18 patients with age range from 41-66 years and at onset between 18-30 years (Old Group)

(III) A Control Group of 30 normal subjects were selected with no past history of affective disorder or any severe psychiatric illness through life time. They were further subdivided to two groups according to their age into:

* **Group (A):** It included 15 normal subjects with age range between 15 - 32 years (Young Group)

* **Group (B)** : It included 15 normal subjects with age range between 40 - 65 years (Old Group)

All subjects of the study (patients & controls) were subjected to the following protocol:

A- Data Sheet

B- A semistructured interview where the following psychometric battery was applied:

1.Hamilton Rating Scale for Depression. (Hamilton, 1969).

2.Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway, 1965).

3.Adjustment Scale (Cannon-Spoor et al., 1982)

4.Psychosocial Stressor Rating Scale. (APA, 1987).

Data Analysis

A comparison was performed by means of Chi-Square and student's t-Test using ANOVA to reveal differences between the different groups.

Results

As shown in table (1) our sample is composed of 54% males and 45% females. The early onset group was 23.26 ± 5.83 for group (A) having young age and 48.06 for group (B) having older age. The mean age for the late onset group was 49.24 ± 7.82. The mean age at onset of depressive illness in the early onset group was significantly lower than that of the late onset group ($P < 0.001$) (table 1)

No difference was found between the two groups (late & early onset) as regards the severity of depression. (table3). But the early onset group showed significantly higher scores on the incidence of double depression, while on the other hand the late onset group scored significantly higher as regards the psychotic features than the early onset group (table3).

Regarding the family history of both groups, results showed that the early onset group was significantly different from both late onset and control groups by having higher rates of positive consanguinity, positive family history of mood disorder, unipolar depression and non affective disorders. While no difference was found between the two groups as regards the positive family history of early onset of unipolar depression ($P>0.05$) (table 2).

As mentioned before, no difference was found between the two groups as regards severity of depression as measured by HRSD (table 4), but the early onset group scored significantly higher on some items of the scale as suicide, late insomnia and obsessive symptoms, while the late onset group scored higher on paranoid symptoms ($P <0.05$).

As shown in table (5) the control group scored significantly lower on Adjustment Scale (better adjustment) than both patient groups, with no difference between early and late onset groups. But on the Social Scale items, the late onset group scored significantly higher on recent stressors (89.19%) while on the other hand the early onset group showed significantly higher incidence of persistent stressors (72.34%) together with unfavourable family and home atmosphere conditions (56.34%) than the late onset group. (table 6).

Finally, mean scores of both patient groups (early and late onset) on all MMPI scales was found to be significantly higher than the control group, but no difference was found between early and late onset groups as regard the different MMPI scales.

Table (1)
Age and Sex Distribution

	Early Onset		Late Onset		Control	
	No.	%	No.	%	No.	%
Sex Distribution						
Male	28	54.9	20	54.05	16	53.33
Female	23	45.1	17	45.94	14	46.67
Mean Age	gp (A)	gp (B)			gp (A)	gp (B)
(in years)	23.26	48.06	49.24		21.53	49.47
	±5.83	±6.25	± 7.82		± 4.14	±8.34
Mean Age at onset of Depressive Illness (Years)*	18.82	24.61	46.68			
	±4.81	± 7.63	± 7.63			

gp (A) : Younger age group. gp (B) : Older age group

* df = 188.28

P < 0.001

Table (2)
Family History

	Early Onset		Late Onset		Control	
	No	%	No	%	No	%
Positive Consanguinity *	14	28.57	4	11.11	-	-
Mood Disorders **	22	45.83	6	18.18	2	6.67
Unipolar Depression ***	14	29.17	3	9.09	2	6.67
Early Onset Depression	7	14.58	3	9.09	2	6.67
Non Affective Disorders ****	13	27.08	5	15.15	11	36.67

* X = 5.69 P < 0.05
** X = 18.5 P < 0.01
*** X = 12.51 P < 0.05
**** X = 11.91 P < 0.05

Table (3)
Characteristics of Depressive Illness

	Early Onset		Late Onset			
	No	%	No	%	X	P
Severity of Depression						
*Moderate:	14	27.45	9	24.32	1.32	>0.05
*Severe:	37	72.55	28	75.68		(N.S)
Incidence of Double:						
Depressions:	13	25.49	6	16.22	6.96	<0.05
Incidence of Psychotic Depression:	12	23.52	11	29.73	5.42	<0.05

Table (4)
Mean Scores on Hamilton Scale

	Early-Onset		Late-Onset	df & P
	gp (A)	gp (B)		df = 1.66
Total Score	32.11 ± 5.25	34.89 ±6.64	32.12 ± 5.80	P > 0.05 (N.S.) df = 4.46
Suicide Score	1.12 ± 1.11	2.00 ±1.09	1.38 ± 0.86	P > 0.05 df = 3.75
Late Insomnia	1.15 ± 0.62	1.67 ±0.59	1.24 ± 0.72	P > 0.05 df = 3.62
Paranoid Symptoms:	0.79 ± 1.17	1.89 ± 1.71	1.51 ± 1.68	P > 0.05 df = 4.17
Obsessive symptoms	0.39 ± 0.75	0.39 ± 0.78	0.03 ± 0.16	P > 0.05

Table (5)
Mean Scores on Adjustment Scale

Early-Onset		Late-Onset	Control	
gp (A)	gp (B)		gp (A)	gp (B)
0.31 ± 0.12	0.30 ± 0.08	0.30 ± 0.13	0.22 ± 0.09	0.21 ± 0.010

df = 3.20 P < 0.05

* The smaller the score on adjustment scale, the better the adjustment.

Table (6)
Distribution on Social Scale Items

	Early-Onset		Late Onset			
	No	%	No	%	X	P
1-Recent stress scores*	41	80.39	33	89.19	17	56.67
Mild	28	54.90	16	43.24	12	40.00
Moderate	10	19.61	10	27.03	5	16.67
Severe	3	5.88	7	18.92	0	0
2-Persistent stress scores**	34	72.34	22	59.46	21	70.00
3-Unfavourable Family & Home Atmosphere ***	27	56.25	16	43.24	15	50.00

* X = 32.57 P < 0.05
** X = 6.70 P < 0.05
*** X = 8.73 P < 0.05

Discussion

Most studies done reported that depression is more frequent in females than males, however it is obvious that most of these studies included mild and moderately depressed patients rather than severe depressives. Gurland (1976) reported that women show higher rates of depression than do men in almost all age decades, though the sex difference becomes progressively less after the age of 45 and may equalize or even reverse above the age of 65 years. However in our study males outnumbers with a ratio of 1.2 : 1 with minimal differences among groups. But it may be acceptable to suggest that among severely depressed patients sex differences becomes minimized or even equalized at different age groups and regardless to the age at onset.

Studies of depression consider an onset less than age of 30-40 years to be "early" (Winokur et al., 1980, Weissman et al 1984 and Price et al., 1987), while an onset above 40 years to be "late" onset (Weissman et al., 1984 and Gurland 1976), others used the fifth decade as a cut-off age (Hamilton 1986, Hare et al., 1971 and Coryell et al., 1986). Our sample show age at onset less than 32 years for early onset group and an onset above 40 years for the late onset group.

No difference was found between early and late onset groups as regards severity of depression as measured by HRSD, a finding which is in line with Green & Ginsberg (1988) and Burvil et al., (1989) who failed to find a difference between early and late onset groups and said that both groups showed full range of severi-

ty of depression. But the early onset group showed significantly higher incidence of double depresion than the late onset group. According to Post (1972) and Conwell et al., (1989) the risk of double depression is possibly increasing with aging and recurrence of depressive episodes. Hare et al., (1971), Gurland (1976) and Corell et al., (1986) agreed that generally psychotic depression was more likely to be pronounced among older groups than among younger groups, a finding which is in agreement with our findings where older patients (late-onset group) showed higher incidence than younger patients with early onset ($P < 0.05$)

Regarding HRSD, a significant difference was found on the Suicide Scale score between older patients (group B & patients whith late onset depression) who scored higher than younger patients (group A) where our results were in agreement with Hamilton (1989) who found suicidal tendencies to be more prominent among older depressed patients than younger depressives regardless to the age at onset. Also with Blazer (1980) and Shaheen et al., (1984) who found higher percentage of suicidal ideas in middle aged depressives (30-50 years) than in elderly depressives (60 years & older)

Similarly, our findings agree with Hamilton (1989) who said that late insomnia to be more common among older depressives than younger ones. Again as Post (1968) reported, paranoid symptoms occur more frequently in elderly patients our results show the same finding. In contrast, obsessive symptoms were reported to be more frequent among the early onset group which is in line with Beniam (1956) while on the contrary Burvill et al (1989) did not find obsessive features to be a differentiating factor between early and late onset patients.

The early-onset groups showed significantly higher percentage of positive consanguinity and higher prevalence of mood disorders among their relatives than the late onset group. These results were in line with findings which support a familial factor in unipolar depression (Winokur 1979, Goldin & Gershon 1988 and Gelder et al., 1991). Also it is in line with studies showing a correlation between positive family history of mood disorders and early onset of first depressive episode (Hopkinson 1964, Weissman et al 1984 and Price et al 1987). A significantly higher incidence of positive family history of unipolar depression was found among the early onset group in comparison to late onset and control groups. A finding supports Weissman et al (1984) and Gershon & Goldin (1988) who found a clear correlation between early age at onset of unipolar depression and the prevalence of the same disorder in the probands relatives.

Our results showed that the control group was adjusting better than both early and late onset patient groups ($P < 0.05$) where Post (1968) and McGlashan (1989) were in favour that persons who fall ill affectively relatively late in life tend to show relatively better adjustment and more stability, but our results failed to support such a suggestion. Similarly, both patient groups scored significantly higher than control group on all clinical scales of MMPI, a finding which supports the statement of Carr (1980) that many MMPI scales other than depression are elevated during clinical depression, but the present study failed to find any relationship between different MMPI scales and particular age or age at onset.

Recent sterssors as measured by social scale revealed that both patient groups scored significantly higher than controls, where the early onset scored lower than the late onset group. These findings in general may give some evi-

dence that the occurrence of stressful life events might be important not only in the first onset of depression but also in recurrence. Perris (1984) reported similar finding, however our results may probably support the convention that with recurrence stressors may be less pronounced and of milder severity and that recent stressors are important causes of late onset depression.

Results revealed that persistent stressors are more likely to be pronounced in early onset than late onset depressives, this may support the suggestion that persistent stressors predispose for the development of early onset depression (APA 1987). Finaly we found the early onset patients to have significantly higher score than both late onset and control groups on early unfavourable family and home atmosphere, such a finding agreed with the convention suggested by DSM III-R (APA 1987) that this type of stressors may be a predisposing factor in early onset depresion.

Conclusions:

The age factor seems to be responsible for at least part of the clinical heterogenity of depresion as it was found that the older the age of the patient, the more is the chance for double depression and psychotic features to develop.

The parameter of age at onset per se seems to be unimportant source of heterogenity in depression, as evidenced by clinical and psychometric evaluation, however our results revealed that:

* Obsessive symptoms and suicidal ideas were more pronounced in the early onset group, while paranoid features were more common in the late onset group.

* In general, the late onset group was more affected by recent social stressors while the early onset patients suffered more from persistent stressors together with early unfavourable family and home atomosphere. While both patient groups showed no difference as regards the level of adjustment.

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Début tôt de dépression contre début kard Une étu de clinique

Un groupe de 88 patients souffrants d'une trouble unipolaire de dépression majeure a été étudié pour clarifier le concept de début tôt et tard de dépression. Les résultats ont démontré une fréquence plus élevée de double dépression avec des traits psychotiques dans le groupe des plus âgés. Tandis que la maladie du groupe de dépression de début tôt a été associeé avec des symptomes obsédants et suicidaires.

Lévaluation sociale des deux groupes a démontré une féquence plus élevée de pressions continuelles, ainsi qu'un air familial défavorable dans le groupe de dépression de début tôt. Tandis que la fréquence des pressions nouvelles est plus élevée pour le groupe de depression de début tarel.

مقارنة إكلينيكية بين الإكتئاب المبكر والمتأخر

تم دراسة مجموعة من مرضى الإكتئاب الذهانى (٨٨ مريض) وذلك لتوضيح مفهوم الإكتئاب نو البداية المبكرة والمتأخرة، أظهرت النتائج أن المرضى من كبار السن هم أكثر عرضه للإصابه بالإكتئاب المزدوج والأعراض الذهانية، بينما فى الإكتئاب المبكر وجد أنه يصاحب أكثر بالإنتحار والأعراض الوسواسية. وأظهر التقييم الإجتماعى للمجموعتين إرتفاع نسبة حدوث الضغوط المستمرة مع وجود جو عائلى ومنزلى غير مناسبين، وذلك للمرضى نوى الاكتئاب المبكر. ولكن بالنسبه لمرضى الإكتئاب المتأخر وجد أن الضغوط الحديثة هى الأكثر شيوعاً. ولم يظهر البحث أى اختلافات بين المجموعتين بالنسبة لتكوين الشخصية أو القدرة على التكيف.