

10 - 15 YEARS RETROSPECTIVE STUDY OF 50 PATIENTS OF MDP FOR SEASONAL VARIATIONS

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SUMMARY

Complete clinical data of 50 consecutive patients of MDP registered at the Hospital for Psychiatric Diseases Srinagar from 1st December 1970 onwards was examined retrospectively in 1986 to determine the relationship between seasonal variations and occurrence or recurrence of affective disorders. The highest number of attacks of mania occurred during summer, whereas the highest number of attacks of depression occurred during later half of winter and early half of spring.

Introduction

Seasonal variations in affective disorders have been suggested since the time of Hippocrates (Zilboorg 1941, Rosen 1970). In recent years a number of studies based on the month of admission data have been reported. Symonds and Williams (1976), Walter (1977), Myer and Davis (1978), and Hare and Walter (1978) showed an admission peak for mania in summer.

The seasonal variations about depressive disorders in these studies have been less consistent than those of mania. However, review of many such studies by Eastwood and Walter (1978) suggested peak of admission for endogenous depression in spring and autumn in Europe and in winter and early spring in various American regions. The study of Parker and Walter (1982) showed the peak incidence of mania in spring and that of depression in the month preceding spring. In another study (1985) we examined the registration and admission data of all the patients of MDP who availed psychiatric facilities at the Hospital for Psychiatric Diseases

Srinagar from December 1970 to November 1975 and compared the findings with the Schizophrenics registered and admitted over the same period. The peak incidence for mania was noticed in summer while the highest incidence of depression occurred in late winter and spring. Schizophrenia showed no relationship with any particular season and occurred uniformly. While reviewing the literature, it is clearly seen that all such studies have merely been restricted to counting the number of patients registered or admitted during each season over few years period and no attempt has ever been made for assessing the phenomenon in some other way. We, therefore, thought it worthwhile to study retrospectively the seasonal variation of attacks of mania or depression in a group of 50 patients.

The principal aim of the present study was to find out the relationship of affective disorders with seasonal variations by conducting a retrospective

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study of 50 patients of MDP over a period of 10-15 years.

Material and Methods

The sample for the study comprised of the clinical data of those consecutive 50 patients of M.D.P. who after their registration (from December 1970 onwards) at the Hospital for Psychiatric Diseases Srinagar suffered subsequently also and reported regularly at the Hospital. This included 7 patients of recurring depression, 21 patients of recurring mania and 22 patients of M.D.P. circular.

The study was carried out by getting the registration number of each patient from hospital records and then tracing out the case records of each patient with the help of these numbers. From each case record the date of onset of attack of mania or depression in particular month and its duration was noted down by a linear arrow pencil marking on a structural proforma. The red pencil marking represented the attack of mania whereas the black was for depression. The total number of attacks of mania or depression in a particular patient in each season over the period of 10-15 years was obtained from the individual proforma of that patient. By adding up the attacks from individual proformas, the total number of attacks of mania and depression during each season was obtained. Each season was further divided into its early half and later half; and one half of the one season and the subsequent half of the next season was also added up to specify the results. These patients were followed up retrospectively from a minimum period of 4 years to a maximum of 15 years depending on time interval and frequency of such attacks. The four seasons, Spring, Summer, Autumn and Winter included the months of March, April, May, June, July, August, September, October,

November; and the months of December, January and February respectively.

Results

Table 1 which indicates the distribution of recurring attacks shows that the total number of attacks of mania during the whole period were 248. Out of this 45 (18.1%) attacks occurred in winter, 65 (26.2%) during spring, 94 (37.9%) in summer and 44 (17.4%) attacks in the season of autumn whereas the total number of attacks of depression during this period was 116. Out of this 33 (28.4%) attacks occurred in winter, 39 (33.6%) in spring, 19 (16.3%) in summer and 25 (21.5%) attacks in autumn.

Table 1
Seasonal distribution over a period of 10-15 years

Season	Mania N(%)	Depression N(%)
Winter	45 (18.1)	33 (28.4)
Spring	65 (26.2)	39 (33.6)
Summer	94 (37.9)	19 (16.3)
Autumn	44 (17.4)	25 (21.5)

Table 2 shows the distribution of the attacks of mania and depression during the first half and 2nd half of each season.

Table 2
Seasonal distribution during first half and 2nd half of each season

Season		Mania N(%)	Depression N(%)
Winter	1st half	19 (7.6)	8 (6.9)
	2nd half	26 (10.4)	25 (21.5)
Spring	1st half	22 (8.8)	29 (25.0)
	2nd half	43 (17.3)	10 (8.8)
Summer	1st half	46 (18.5)	4 (3.4)
	2nd half	48 (19.3)	15 (12.9)
Autumn	1st half	23 (9.2)	9 (7.7)
	2nd half	21 (8.4)	16 (13.7)

Table 3 which also represents a time period of 3 months only in each division, further specifies the results and shows that 48 (19.3%) attacks of mania occurred in late winter and early spring; 89 (35.8%) attacks in late spring and early summer; 71 (28.6%) attacks during late summer and early autumn and 40 (16.1%) during late autumn and early winter. Whereas the distribution for the attacks of depression was 54 (46.5%) during late winter and early spring; 14 (12%) during late spring and early summer; 24 (20.6%) attacks during late summer and early autumn; and 24 (20.6%) attacks during late autumn and early winter.

Table 3
Seasonal distribution during the later half of one season and the early half of subsequent season.

Season	Mania	Depression
Late Winter	26 (10.4)	25 (21.4)
Early Spring	22 (8.8)	29 (25.0)
Total	48 (19.3)	54 (46.5)
Late Spring	43 (17.3)	10 (8.6)
Early Summer	46 (18.5)	4 (3.4)
Total	89 (35.8)	14 (12.0)
Late Summer	48 (19.3)	15 (12.9)
Early Autumn	23 (9.2)	9 (7.7)
Total	71 (28.6)	24 (20.6)
Late Autumn	21 (8.4)	16 (13.8)
Early Winter	19 (7.4)	8 (6.9)
Total	40 (16.1)	24 (20.6)

Discussion

The limitations of studies based on seasonal variation in admission data have been discussed in a previous paper of the authors (1985). While this is one of the first of its type to assess the seasonality of affective disorders this way, the results are in general agreement with those obtained in studies based on admission data.

The findings of the study, as is clear

from table 1, show that the highest number of manic attacks 94 (37.9%) occurred in summer only which is in agreement with the findings of Myer and Davis (1978) who also reported summer peaking for mania in England and Wales. The highest number of depressive attacks 39 (33.6%) occurred in spring whereas Parker and Walter (1982) reported the highest incidence of depression in late winter.

Table 2 which shows the number of attacks occurring during first half and 2nd half of each season separately shows that the maximum attack period for both mania as well as for depression overlaps from one half of one season to the following half of the next season.

Table 3 which comprises of two adjacent halves of the two adjoining seasons further specifies the results and clearly shows that 54 (46.5%) attacks of depression occurred during late winter and early spring and 89 (35.8%) mania attacks occurred during late spring and early summer. As a result of such findings from various studies about seasonal variation of affective disorders, people have started describing seasonal affective disorders as a separate group and treating them accordingly (Rosenthal et al. 1985; Bick 1986). A very recent study of such kind (Wehr et al. 1987) has shown that the antidepressant effects of phototherapy were much greater when light was applied to eyes than to skin. The research on the identification of probable anatomical route of entry for the mechanism of phototherapy is underway. The authors are also working on 36 patients of seasonal affective disorders and the findings would be submitted soon.

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