IS ALOPECIA AREATA PSYCHOSOMATIC?

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SUMMARY

Thirty cases of Alopecia Areata from O.P.D. of Govt. Hospital, Madras were administered Indian Version of schedule of Recent Experience, Taylor's Manifest Anxiety Scale, Beck's Depressive Inventory, Hostility Direction and Hostility Questionnaire of Fould's and Gattell's 16 PF Questionnaire (Form E) to find out antecedent stress, anxiety, depression, hostility and personality factors. Thirty cases of Tinea versicolor as well as normal controls matched for age, sex, educational level and income were assessed on similar parameters. There was significant difference in the area of antecedent stress, anxiety and depression in Alopecia Areata group when compared to normal controls. Otherwise no significant antecedent stress, anxiety, depression, hostility and personality factors could not be demonstrated in cases of Alopecia Areata as compared to a known non-psychosomatic illness i.e. Tinea versicolor.

Alopecia Areata is a condition characterised by “sudden complete loss of hair in sharply defined round or oval patches without any evidence of atrophy or inflammation”. It occurs frequently over the scalp, but can occur in other parts of the body such as beard, moustache, chest etc. While reviewing the literature many studies favour a psychogenic theory in the aetiology of Alopecia Areata (Plumbe, 1837; Kaplan and Reisch, 1852; Tuke, 1884; Crocker, 1905; McKenna, 1927; O'Donovon, 1927; Greenberg, 1955 and Mehlman & Greismer, 1960). Anderson (1950) studied a sample of 114 cases and observed psychogenic trauma as a precipitating cause in 23% of the cases. Greenberg (1955) studied 44 patients suffering from Alopecia Areata and found anxiety as well as depressive features in most of the cases.

Some others noted that acute emotional stress as a precipitating factor in 12% of the sample (Muller & Winkelmann, 1963). Ikeda (1965) found role of psychosocial factors in such cases. Cohen and Litchenberg (1967) noticed that two patients developed Alopecia Areata at the time of planned termination of Psychotherapy. According to authors, it was akin to loss of primary and sustaining love object.

Few authors were against a psychogenic theory (Hutchinson, 1893; Sabourad, 1929 and Becker and Obermayer, 1947). Macalpine (1958) too argued against the psychogenic theory. She pointed out that there was no increase in the incidence of Alopecia Areata during the war. She further observed that Alopecia Areata occurred in the mentally retarded and it was unlikely that it is a stress disorder. Perhaps her assumption that mentally retarded were incapable of appreciating psychogenic stress was wrong. Whitlock (1976) in a careful review of literature of Alopecia Areata commented on the work of Macalpine (1958) and pointed out that she rejected the psychogenic theory too readily. He felt that too many authors have been convinced of the truth of the psychogenic theory, for it to be finally laid to rest at a time when our ignorance of the pathogenesis of Alopecia Areata was profound. Nevertheless antecedent stress and psychological disturbances such as anxiety, depression, hostility etc. were observed in many cases of Alopecia Areata by different authors.

The present study was therefore, designed to study (1) the antecedent

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psychosocial stress in a group of patients suffering from Alopecia Areata, (2) the anxiety depression and hostility (qualitative as well as quantitative) in a group of patients suffering from Alopecia Areata and (3) the personality traits of patients suffering from Alopecia Areata.

MATERIAL AND METHODS

The sample consisted of three groups. First group consisted of 30 patients suffering from Alopecia Areata selected randomly by a consultant dermatologist from out-patient department of Govt. General Hospital, Madras. The second group consisted of 30 patients suffering from 'Tinea-Versicolor of the face' chosen randomly by the same dermatologist. This group was taken as the first control since it had a cosmetic defect. Tinea versicolor of other parts of the body was avoided, as anxiety and excessive sweating could lead to fungal growth. Besides a skin disorder which is devoid of itching and which in itself could produce anxiety, depression, hostility etc., a pure fungal infection was sought for. Since Tinea versicolor satisfied all these criteria, it was chosen as the first control. Third group consisted of 30 subjects considered to be normal (i.e. free from physical illnesses including skin disorders and psychiatric illnesses). These normal subjects were referred by non-medical non-psychiatric friends of the author.

The subjects included in the study were only males. Other criteria for inclusion were age ranging between 18 to 48 years, educational qualification more than 8th standard and upto S. S. L. C. and income less than Rs. 300/- per month.

The subjects of each group were screened by an endocrinologist, an oto-laryngologist and a dentist for any focal sepsis. Blood VDRL was done for the study groups. All the three groups were assessed by following instruments.

(a) Indian Version of Schedule of Recent Experience
(b) Taylor's Manifest Anxiety Scale
(c) Beck's Depressive Inventory
(d) Hostility Direction and Hostility Questionnaire of Foulds.
(e) Cattell's 16 PF Questionnaire (Form E).

OBSERVATIONS AND RESULTS

Table-1 shows means, standard deviations and 't' values of psychological stress measured by 'Schedule of Recent Experience' in three groups. Alopecia Areata Group had significantly more psychological stress when compared to normal controls. However there was no significant difference between Alopecia Areata group and Tinea versicolor group.

| Group                        | Mean  | S.D.  |
|------------------------------|-------|-------|
| A. Alopecia Areata (N=30)    | 166.07| 90.58 |
| B. Tinea Versicolor (N=30)   | 133.10| 84.42 |
| C. Normal (N=30)             | 87.97 | 37.38 |

Table-2 shows means, standard deviations and 't' values of anxiety measured by 'Taylor's Manifest Anxiety Scale' in three groups. Alopecia Areata Group scored significantly more on the scale as compared to the normal controls.

Table-2. Comparison of three groups on 'Taylor's manifest anxiety scale'

| Group                        | Mean  | S.D.  |
|------------------------------|-------|-------|
| A. Alopecia Areata (N=30)    | 24.60 | 10.50 |
| B. Normal (N=30)             | 16.37 | 4.44  |
| C. Tinea Versicolor (N=30)   | 23.97 | 8.76  |

Table-2 shows means, standard deviations and 't' values of anxiety measured by 'Taylor's Manifest Anxiety Scale' in three groups. Alopecia Areata Group scored significantly more on the scale as compared to the normal controls. How-
ever, there was no significant difference between two skin groups.

Table-3 shows means, standard deviations and ‘t’ values of depression measured by ‘Beck’s depressive inventory’ in three groups. Alopecia Areata Group score significantly for depression when compared to the normal controls. There was no significant difference between two skin groups.

**Table 3. Comparison of three Groups on Beck’s inventory**

|                | Mean | S.D. |
|----------------|------|------|
| A. Alopecia Areata (N=30) | 20.47 | 13.08 |
| B. Normal (N=30)     | 2.20  | 2.02  |
| C. Tinea Versicolor (N=30) | 16.47 | 11.82 |

*t values: A Vs. B—7.45, p<.001  
A Vs. C—1.22, N.S.*

Table-4 shows means, standard deviations and ‘t’ values of factor Q-4 of 16 P. F. (which denotes nervous tension as well as trait) in all three groups. Alopecia Areata group scored significantly more on the Q-4 factor of 16 PF when compared to normal control group. There was no significant difference between two skin groups.

**Table 4. Comparison of three Groups on ‘Q. 4′ of 16 PF**

|                | Mean | S.D. |
|----------------|------|------|
| A. Alopecia Areata (N=30) | 5.87  | 2.15  |
| B. Normal (N=30)     | 4.50  | 0.56  |
| C. Tinea Versicolor (N=30) | 6.10  | 1.84  |

*t values: A Vs. B—3.33, p<0.01  
A Vs. C—2.64, N.S.*

Table-5 & 6 shows means, standard deviations and ‘t’ values of factors ‘F’ and ‘O’ respectively of 16 P. F. (which denotes ‘depressive agitated anxiety’ and ‘depressive tendency’ respectively) in all 3 groups. Alopecia Areata group did not score significantly more than the control group on these two factors. There was no significant difference between two skin groups.

**Table 5. Comparison of Three groups on factor ‘F’ of 16 P. F.**

|                | Mean | S.D. |
|----------------|------|------|
| A. Alopecia Areata (N=30) | 5.97  | 1.24  |
| B. Normal (N=30)     | 5.3667 | 1.9139 |
| C. Tinea Versicolor (N=30) | 6.70  | 0.94  |

*t values: A Vs. B—2.55, N.S.*

**Table 6. Comparison of Three Groups of factor ‘O’ of 16 p. F.**

|                | Mean | S.D. |
|----------------|------|------|
| A. Alopecia Areata (N=30) | 5.20  | 2.09  |
| B. Normal (N=30)     | 4.67  | 1.07  |
| C. Tinea Versicolor (N=30) | 4.80  | 1.76  |

*t values: A Vs. B—1.23, N.S.  
A Vs. C—0.79, N.S.*

**DISCUSSION**

Various workers have shown that there is an increase in life change Units preceding the onset of any illness be it physical, psychiatric or psychosomatic (Rahe et al., 1964; Rubin et al., 1971 and Tehorell et al., 1971). But to say that an illness is psychosomatic, it had to be demonstrated that psychological stress plays a dominant role in the causation of the illness. It has been observed in our study that Alopecia Areata group had significant psychological stress as measured by ‘Schedule of Recent Experience’. Antecedent stress is only comparable and not significantly more than a known non-psychosomatic illness like Tinea-versicolor rules out the possibility of Alopecia Areata being a psychosomatic illness. The
results however indicate that psychosocial stress may play a contributory role in the onset of Alopecia Areata as it does in any other illnesses. Tuke (1884), Anderson (1950), Greenberg (1955) and Muller & Winkelmann (1963) observed role of anxiety and depression in development of Alopecia Areata. Our finding of statistically significant anxiety and depression in Alopecia Areata is consonant with the findings of above mentioned studies. However, the anxiety is a trait and not a state as Macalpine (1958) felt. However when patients were rated on factors ‘F’ and ‘O’ of 16 P. F., which measures the traits ‘depressive agitated anxiety’ and ‘depressive tendency’ respectively, Alopecia Areata group does not score significantly when compared to controls. Hence it can be concluded that the depression found in Alopecia Areata group is a mood state and not a trait. Probably the depression is a reaction and not the cause of Alopecia Areata. As regards the general punitive factor, extrapunitiveness and intrapunitiveness, the Alopecia Areata group and Tinea Versicolor group score significantly than the normal controls. However, the skin groups do not vary significantly among themselves. Regarding the direction of hostility, both skin groups tended towards extrapunitiveness, but below the level of statistical significance. Hence the hypothesis that anxiety, depression and hostility were more in Alopecia Areata as compared to the controls could not be confirmed.

REFERENCES

Anderson, I. (1950). Alopecia Areata—a clinical study. British Medical J., 11, 1250.

Becker and Obermayer (1947). As quoted by Macalpine, I. (1958). Brit. J. Dermatologist, 70, 117.

Cohen, I. and Litchenberg, J. D. (1967). Alopecia Areata. Archives J. Psychiat., 17, 608.

Crocker (1903). Quoted by Whitlock, F. A. (1976). Psychophysiological aspects of skin diseases, London.

Greenberg, S. I. (1955). Alopecia Areata—a psychiatric study. Archives of Dermatology, 70, 117.

Hutchinson (1893). Quoted by: Macalpine, I. (1958) Brit. Med. J. of Dermatology, 70, 117.

Mehlman, R. D., and Greisen (1968). Alopecia Areata in the very young. Amer. J. Psychiat., 125, 605.

Muller, A. S. and Winkelmann, R. K. (1963). Alopecia Areata. Arch. of Dermatology, 88, 290.

O’Donovon (1927). Quoted by: Macalpine, I. (1958). Brit. J. Dermatology, 70, 117.

Plumbe (1837). Quoted by: Macalpine, I. (1958). Brit. J. Dermatology, 70, 117.

Rake, R. H., Meyer, M., Smith, M., Kjaer, G., and Holme, T. B. (1964). Social Stress and illness, onset. J. Psychosomatic Res., 8, 38.

Rubin, R. T., Gundersen, S. K. E. and Arthur, R. J. (1971). Life stress and illness patterns in the U. S. Navy. J. of Psychosomatic Res., 3, 277.

Subbouraud (1929). Quoted by: Macalpine, I. (1958). Brit. J. Dermatology, 70, 117.

Theorell, T. and Rake, R. H. (1971). Psychosocial factors and Myocardial infarctions—an inpatient study in Sweden. J. Psychosomatic Res., 15 (1), 25.

Tuke (1884). Quoted by Whitlock (1976). Psychophsyiological aspects of skin Disease, London.

Whitlock, F. A. (1976). In: Psychophysiological aspects of skin diseases, London.