

LICHEN SIMPLEX CHRONICUS - A PSYCHOCUTANEOUS DISORDER?

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Lichen simplex chronicus is classified as a skin disorder determined or influenced by emotional factors. This study was conducted to determine the involvement of the psyche in this psychocutaneous disorder. Forty six patients of lichen simplex chronicus were chosen for this study. The severity of pruritus was rated on a 10 point scale. They then underwent a psychiatric interview using the Hamilton anxiety-depression scale to quantitate their mental state. The numerical values of anxiety and depression did not exceed 50% of the measuring scale. This could be due to the 'venting' or exteriorisation of the inner turmoil, in this case by itching. The correlation between anxiety and pruritus and that of depression and pruritus was studied and it was surmised that depression may be related to pruritus compared to anxiety.

Key Words: Lichen simplex, Anxiety, Depression, Pruritus

Introduction

Lichen simplex chronicus (LSC) is a chronic skin disease which results due to a fixed conditioned response to itch.¹ Since histological picture shows nerve changes, it is often called neurodermatitis.² A strong psychogenic basis has been postulated by several researchers³ as these lesions worsen during periods of fatigue and emotional stress⁴ and improve with rest and relaxation. This study was carried out to assess whether the psyche was involved in this psychocutaneous disorder and the degree to which it is involved. The two parameters of psyche chosen in this study were anxiety and depression.

Materials and Methods

Forty-six patients of LSC (age range-14 to 75 years, 28 men and 18 women) were inducted into this study. The severity of pruritus was rated on a 10 point scale.

0. No itching.
1. complained of when asked
2. complained of during rest hours in the day, occasionally.
3. complained of during rest hours in the day, paroxysmally.
4. complained of during rest hours in the day, continuously.
5. occurs during sleep.
6. wakes the patient up from sleep.
7. prevents sleep.
8. mild itching while at work.
9. distracts patient at work.
10. patient unable to concentrate at work.

Later they were subjected to a psychiatric interview, using the Hamilton anxiety-depression scale. This scale was devised by Max Hamilton of the University of Leeds.⁵⁻⁸ The scale provides a simple way of assessing the severity of a patient's condition quantitatively and for showing changes in that condition. Other things being equal, the value of the rating depends entirely on the skill and experience of the rater and on how adequate is the information available to him.

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Hamilton took 10 major categories commonly associated with depression

1. Depressed mood
2. Suicide
3. Loss of interest
4. Retardation
5. Agitation
6. Gastro-intestinal symptoms
7. Hypochondriasis
8. Insight
9. Loss of weight
10. General somatic symptoms

and subdivided them to provide 17 items. Symptoms are rated finely or coarsely; the former are on a 5 point scale (0-4) where the numbers are equivalent to absent, doubtful or trivial, mild, moderate and severe. The later on a 3 point scale (0-2) equivalent to absent, doubtful or mild and obvious, distinct or severe.

The Hamilton Anxiety scale is a 14 item scale

II Psychic Anxiety

1. Anxious mood
2. Tension
3. Fears
4. Insomnia
5. Intellectual
6. Depressed mood
7. Behaviour at interview

III Somatic Anxiety

8. Somatic, muscular
9. Somatic, sensory
10. Central nervous system symptoms
11. Respiratory system symptoms
12. Gastrointestinal symptoms

13. Genito-urinary symptoms

14. Autonomic symptoms

Assessments are made on a 5 point scale similar to the one in depression scale.

Results

The numbers indicate numerical values of A-Anxiety and D-Depression of the patients.

Pruritus

rating

1. A - 4 - 0
D - 10 - 6
2. A - 2 - 2 - 14 - 2 - 8 - 4
D - 2 - 2 - 16 - 2 - 20 - 8
3. A - 4 - 12 - 6
D - 14 - 20 - 16
4. A - 46 - 8 - 2 - 10 - 10
D - 46 - 8 - 2 - 6 - 6
5. A - 26 - 4 - 6 - 6 - 0 - 0
D - 18 - 8 - 12 - 12 - 2 - 2
6. A - 2 - 0 - 0 - 8
D - 2 - 4 - 6 - 14
7. A - 12 - 2 - 2 - 2 - 22 - 4 - 30 - 0 - 8
D - 14 - 6 - 10 - 10 - 18 - 6 - 46 - 6 - 6
8. A - 4 - 4 - 0 - 8
D - 10 - 8 - 4 - 12
9. A - 8 - 10
D - 12 - 14
10. A - 6 - 18 - 2 - 26 - 4
D - 16 - 38 - 30 - 36 - 14

Statistical analysis suggested that anxiety or depression was the primary cause and pruritus was the dependant variable. Thus if anxiety values were plotted on x axis and pruritus values on y axis, some correlation was expected to prevail.

The degree of correlation between x and y axis 'r' was calculated using the following formula:

$$r = \frac{1}{n} \left(\frac{(x - \bar{x})}{\delta x} \right) \left(\frac{(y - \bar{y})}{\delta y} \right)$$

Where x = Anxiety or depression

y = Pruritus

\bar{x} = Mean of x values

\bar{y} = Mean of y values

n = total number of patients

δx = Standard deviation of x

δy = Standard deviation of y

Using the above formula for anxiety on x axis, $r = 0.08$.

and if depression is on x axis, $r = 0.291$.

For a perfect direct degree of correlation $r = 1$

Discussion

The minimal and maximal values of anxiety or depression scale range from 0-112. The numerical values of anxiety and depression in our study do not exceed the level of even 50% of the measuring scale. This could also be because the stresses generated in the human system received some exteriorisation or so called 'venting' of the inner turmoil or imbalance.

It can be seen that the values of r in both cases is quite poor which is due to the fact that many other factors affecting pruritus levels in individuals, are interfering. Even then in all probability depression might be related more to pruritus compared to anxiety because 'r' value is higher in case of depression.

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