

Effects of Chronic Lymphocytic Leukemia on the Emotional and Physical Wellbeing of Patients

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ABSTRACT

Chronic lymphocytic leukemia is associated with many underlying mental health problems. [7] There has not been a significant amount of research done previous, yet there have been general studies that relate depression to CLL.

This study gathered data through ads on facebook directed at those with cancer. Two groups of data were gathered, a group of CLL patients and a group of healthy individuals. This survey assessed the participants mental health, and focused on each mental issue. These were depression, anxiety, stress, and overall distress.

Supporting previous research, this study concluded that patients with CLL do have higher rates of anxiety, depression, and stress. These findings can be used to improve patient care and to implement better mental health support services.

RESEARCH QUESTION

To what extent are the emotional/psychological symptoms in patients with CLL different than that of individuals without cancer?

INTRODUCTION

Cancer has a massive impact on an individual's physical status, along with their mental health and quality of life. Cancer takes a major toll on an individual, putting stress on their family, work, and friendships. This is often a cause of severe psychological distress. [1]

Chronic lymphocytic leukemia (CLL) is a disease that attacks the immune system, making the patient very susceptible to disease.

The psychological symptoms of CLL-

- Depression
- Anxiety
- Stress

- There have been links made between the mental health of patients and the amount of medical attention needed to keep them healthy [2]

Differences in treatment

- Therapy
- Lower dose of medicine
- more complementary therapies

Participants-

- CLL and non CLL
- Over 55
- Gathered through facebook ads
- Given multiple surveys in order to access mental state

The results show that patients with chronic lymphocytic leukemia have increased levels of stress, anxiety, depression, and psychological distress.

MATERIALS & METHODS

Data was collected by sending a survey to various people within the community, half of which have chronic lymphocytic leukemia. The individuals were gathered by posting the survey on Facebook. 38 individuals responded, 9 have CLL, and 13 have no illnesses. These two groups were used in the data analysis, all other participants were discarded.

The survey is composed of various tests used to professionally determine levels of stress, depression, anxiety, and psychological distress in an individual's life. This method is best because the data collected has a large variety, and therefore is able to be used for different studies.

The questions for each survey were counted using a point system. These points add up at the end and align with the severity of disorder being tested.

Surveys used:

K10 - Overall Physiological Distress

- <20 - well
- 20-24 mild mental disorder
- 25-29 moderate mental disorder
- >29 severe mental disorder

During the past 30 days, about how often did you feel that everything was an effort? *

PHQ-9, depression

- 1-4 - Minimal depression
- 5-9 - Mild depression
- 10-14 - Moderate depression
- 15-19 - Moderately severe depression
- 20-27 - Severe depression

During the past 2 weeks, how often have you felt down, depressed, or hopeless? *

GAD-7, anxiety

- 0-9 - None to mild
- 10-14 - Moderate
- 15-21 - Severe

During the past 2 weeks, how often have you felt nervous, anxious or on edge? *

PSS, stress

- 0-13 - low stress
- 14-26 - moderate stress
- 27-40 - high stress

In the last month, how often have you felt that you were unable to control the important things in your life? *

RESULTS

The K10 survey displayed a difference of 1.5 points

- 20.1 for CLL group
- mild-severe distress
- 18.6 for Healthy group
- no-mild distress

The PHQ-9 survey displayed a difference of 0.8 points

- 6.6 for CLL group
- minimal-mild depression
- 5.8. for Healthy group
- mild-moderate depression

The GAD-7 survey had the greatest difference of 2.7 points between the groups

- 6.6 for CLL group
- minimal anxiety
- 3.9 for Healthy group
- mild anxiety

The PSS survey displayed a difference of 1.8 points

- 15.0 for CLL group
- moderate stress
- 13.2 for Healthy group
- low stress

The surveys had a general difference of 1.7 points, which charts a significant difference in mental health between the groups.

SIGNIFICANCE OF FINDINGS

Patients with chronic lymphocytic leukemia tend to have higher rates of depression, anxiety, stress, and psychological distress.

- Stage 0- No symptoms
- Stage 1- enlarged lymph nodes
- Stage 2- enlarged liver or spleen causing pain
- Stage 3- Anemia, more infections, fever
- Stage 4- Thrombocytopenia, extreme immune risk, fatigue, weight loss, chills, night sweats

Support for these symptoms throughout the stages is necessary to keep the patient functioning.

Alternative therapies could be:

- Therapy
- Medical marijuana
- Anxiolytics

Treatments-

- Chemotherapy
- Radiation
- Stem cell transplant

Complementary therapies could be:

- Massage
- Therapy
- SSRIs or anxiolytics

CONCLUSIONS

The results of this study supports the research question in that patients with CLL have more extensive psychological symptoms than individuals with no illness. This information can be utilized to treat CLL patients better using mental health support.

FUTURE WORK

How do mental health support services affect the quality of cancer treatment?

Do patients have better outcomes when they are mentally healthy?

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