

# A cupressure and Art Therapy : In Elderly Sufferers With Comorbidity

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## ABSTRACT

The elderly are more likely to experience comorbid disorders due to a decrease in physical and psychological conditions. Acupressure therapy and Art Therapy (A T) is a method of combined physical and psychological treatment which is believed to increase the incidence of physical- mental comorbid diseases in the elderly . The aim of the study was to see the effect of acupressure and AT in reducing levels of IL-6, TNF- $\alpha$  and IL-1 $\beta$  and reducing anxiety in the elderly with comorbid disorders.. The method used was experimental and the control group using pre- and post-test, the number of samples used as many as 15 people, divided into three groups , the control group, the treatment acupressure and acupressure treatment-AT (AAT) . The results showed that acupressure and AT had a better effect in reducing levels of IL-6 , TNF-  $\alpha$  and IL-1 $\beta$  in the blood compared to the control group and the acupressure group . This result is supported by psychological tests which show better results in the AAT group.

**Key words:** *Acupressure, Art Therapy, Comorbidity, Elderly*

## INTRODUCTION

Patients with comorbidities or more than one disease are often found in people with chronic diseases , including a combination of physical-mental illness. The combination of diseases experienced by a person is known as comorbidity. A disease experienced by a person who is chronic in nature can also suffer from mental disorders as a result of constantly thinking about the illness they are suffering from. Mental disorders that can be experienced by patients with chronic diseases include anxiety disorders.

Anxiety can be experienced by everyone and is a common occurrence when it occurs under normal conditions, but when feelings of anxiety occur with high intensity and interfere with daily life activities, it is called an anxiety disorder. Anxiety disorders can have a significant negative impact both psychologically and on the daily activities of patients with functional disorders. The negative impact of psychological disorders will be reflected in the reduced quality of life (Sulaiman et al. , 2017) . Kiecolt-Glaser et al stated that negative emotions such as anxiety and depression can lead to an increased risk for disorders with inflammatory etiology, and increased inflammatory activity can be an important mediator of the emotion-disease relationship (O'Donovan et al. , 2010)

Research data in Russia based on wikipedia data shows that from 94.2% of cases of patients with chronic diseases, on average, they experience two or three other comorbidities (Jakovljević and Ostojić, 2013) . Research conducted by Keskin and Bilge in Turkey, mene mukan that the prevalence of anxiety disorders in hypertension was 9.5% and for diabetes is 16.0% and the prevalence of depressive disorders in hypertension was 5.2% and for diabetes is 22.7% (Peltzer and Pengpid, 2016) .

Methods of treating diseases with physical-mental comorbidities require at least two therapeutic methods, namely the medical field for treating physical illnesses and the psychiatric field for the treatment of mental disorders. The existing modern medical methods are sometimes not able to provide the expected healing, therefore sometimes a complementary treatment method is needed to help improve healing. Treatment methods with acupoint manipulation and Cognitive Behavior Therapy are alternative therapeutic methods which are expected to be a companion treatment method for modern medicine in enhancing recovery.

The acupoint manipulation treatment method is an extension of traditional Indonesian therapy and combines it with knowledge of acupoints. The acupoint manipulation treatment method is different from acupuncture in that it only stimulates the skin's surface by rubbing it for a few minutes. The acupoint used in the study was ST-36 or known as the Zu San Li point . Acupoint ST36 is an important point and is very commonly used in acupuncture (Dimitrov et al. , 2016) . Chang et al. Stated that ST-36 is used primarily to treat diseases related to the digestive, neurological, and respiratory systems (Chao et al. , 2013) .

A psychological therapy method for anxiety disorders that can be used is Cognitive Behavior Therapy ( AT ). AT is one form of therapy is psychological in essentially the AT is no process of learning new skills to help manage the anxiety experienced with the aim to find a way to think and

behave in controlling anxiety in the period of time long. According to Batler et, al based on several meta-analyzes conducted showing that Cognitive Behavioral Therapy ( AT ) is effective in helping to cure common mental health disorders such as anxiety and depression in various populations (Twomey, et al, 2015) .

The use of a combination of acupoint manipulation therapy methods and AT as a companion therapy in the treatment of patients with physical-mental comorbid disorders is expected to provide better results because the treatment methods are simultaneous.

The development of a person's health status as a result of the given treatment method can be seen from various aspects. One aspect that can be used to determine health status is the level of Interleukin 6 (IL-6) in the blood . IL-6 is a soluble mediator with pleiotropic effects on inflammation, immune response, and hematopoiesis. IL-6 worked quickly and produced as a form of response to infection and injury suffered by the network, contributing to the defense system by stimulating the acute phase response, histopsiesis, and immune response. The synthesis of IL-6 are strictly controlled by transcriptional and posttranscriptional mechanisms, but the synthesis of IL-6 irregular basis continuously can provide pathological effects on per adangan chronic and autoimmunity (Tanaka et al, 2014) .

The purpose of this study was to determine the effect of manipulation at the ST-36 and AT acupoints to reduce IL-6 in patients with anxiety disorders .

## **METHODS**

The research conducted was an experimental study and the research design used was The One-Group Pretest-Posttest Design with a control group. The number of samples used is 20 adults who suffer from anxiety disorders . Sample selection is done by conducting health and psychological examinations of prospective research participants to ensure there is an anxiety disorder in potential participants. The division of the treatment group was carried out by means of random sampling, and was divided into two groups, namely the control group and the treatment group. The treatment group will get acupoint t manipulation treatment at the ST-36 point three times per day for two months and each acupoint manipulation treatment is carried out for 15 minutes. The acupoint manipulation at the ST-36 point is done by rubbing with the fingers with a little pressure. During the treatment period, participants will also receive AT therapy which is carried out eight times. Data collection in the form of blood samples for biomedical laboratory tests and psychological tests to see the psychological condition of the participants was carried out before and after the treatment was given. Statistical analysis of the results of biomedical laboratory tests of IL-6 levels in blood was carried out using the t test to see the differences between treatments. The psychological test given to the participants is a graphic test and the interpretation of the test results is carried out descriptively.

## **RESULTS AND DISCUSSION**

The results of the research based on the t test between the control group and the acupoint manipulation treatment group and the AT showed that the t value = 2.623 with a significance value of 0.017 ( $p < 0.05$ ). These results indicate that there is an effect of manipulation at the ST-36 and AT acupoints to reduce IL-6 in patients with anxiety disorders. The results of a study conducted by Yim et al., ( 2007) showed that acupuncture given at the ST - 36 point significantly reduced the incidence of CIA, IL-6, TNF-  $\alpha$  , INF-  $\gamma$  , collagen II antibodies, IgG and IgM levels. on the serum of CIA mice and prevent damage to the knee joint. Another study conducted by Wang et al. also showed that acupuncture stimulation in ST-36 in the treatment group had significantly lower levels of TNF-alpha, IL-6 in cerebral tissue compared to other groups ( $P > 0.05$ ) (Wang, Du and Shi, 2013) .

Giving therapy to the ST-36 acupoint in addition to helping improve physical conditions can also help patients reduce the level of anxiety they experience. ST - 36 is the He-Sea point on the "stomach" meridian (ST) that strengthens "Qi" and "blood," harmonizes and strengthens the "spleen" and "stomach," and ultimately strengthens the body . The ST-36 point is believed to be associated with earth elements associated with emotions such as anxiety and stress; Therefore, ST- 36 is widely used to treat psychological / mental disorders (Zhao et al. , 2014) .

The results of psychological tests showed that the number of patients with mild anxiety disorders in the group that received acupoint manipulation and AT was higher than that in the control group . The number of patients with mild anxiety levels in the acupoint manipulation and AT treatment groups showed that the AT given had a positive effect on sufferers of anxiety disorders. AT is an active therapy that requires the client to participate in the recovery process. Freedom from unnecessary suffering can be achieved for those who incorporate AT components into their daily life; With the practice of newly acquired skills, AT is a very effective treatment for those with anxiety disorders (Connell, 2010) . The results of research conducted by Stewart and Chambless also show that AT is

effective in helping to overcome anxiety disorders in adults in clinically representative conditions (Stewart and Chambless, 2009) .

The provision of alternative therapy which is a combination of physical therapy and psychological therapy in patients with physical-mental comorbidities can have an effect on reducing IL-6 levels in the blood and this opens the possibility of explaining acupoints other than ST-36 to maximize therapy. given in an effort to improve the recovery of diseases with physical-mental comorbidities. Stimulation of acupoints has been shown to perform anti-inflammatory action, at least in part, via activation of so-called cholinergic anti-inflammatory pathways. Therefore, therapy with the acupoint stimulation method should be part of the armamentarium of each doctor who treats patients with immune-mediated disorders, because it can affect disease progression and thus, improve quality of life (Panagiotis et al, 2017) .

## CONCLUSION

Based on the results of the study, it can be concluded that ST-36 acupoint manipulation and AT administration in chronic patients with anxiety disorders can help improve recovery through reduction of IL-6 in the blood, and these results indicate that acupoint and AT manipulation can be used as a companion treatment method.

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