

Effects of Ceragem Therapy on Decline Uric Acid Levels

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Abstract: *Gout disease is a disease characterized by the sudden and recurring attacks of arthritis which very painful because of the deposition of monosodium uric crystals that accumulated in joint as a result of the high levels of uric acid in the blood (hyperuricemia.). Gout or gout is a disease that has been known since the hippocrates, often referred to as "the disease of kings and kings of disease" because it often appears in a group of people with high socio-economic ability so that it can often consume meat (ie the royal family in ancient times) as well as for causing extreme pain. This type of research is a quasi experiment (quasi-experimental) with a time series design model. That is, before the treatment is carried out, observations are made on the sample and after the treatment is also carried out several observations Statistical test results obtained p-value <0.05 (0.002 <0.05) Based on the results of statistical tests using paired t-test is 0.002 obtained from these test results can be concluded the influence is very significant before and after therapy Ceragem.*

1 INTRODUCTION

Gout or gout is often not considered a deadly disease, but if not treated properly can be chronic gout where the sufferer will often suffer pain in the joints. In the long run, this not only disrupts activity, but also has the potential to cause kidney stones and kidney failure and even heart disease. Do not let you be haunted by gout. Get to know and overcome JKJ in the right way. (Prabowo,2009).

Gout or gout is a disease that has been known since the hippocrates, often referred to as "the disease of kings and kings of disease" because it often appears in a group of people with high socio-economic ability so that it can often consume meat (ie the royal family in ancient times) as well as for causing extreme pain. Gout itself comes from the Latin language, namely gutta (droplets) because of the ancient belief that the disease is caused by injuries that fall droplets by drops in joints.

The incidence or prevalence of gout varies from country to country, in America over 18 years the prevalence is 1.5%, in Iceland it is only 1-18%, in Indonesia gout is mostly found in the ethnic minahasa toroja, and batak, the occurrence number is 29.2 %

According to a neurologist from Cipto Mangunkusumo Hospital, nearly 80% of the world's population has experienced low back pain, meaning that 8 out of 10 people have had gout because of low

back pain, including the symptoms of gout 50% of joint pain complaints caused by calcification.

Based on the status of the population census, Indonesia's population over 65 years increased from 2.98 million (2.25%) in 1971 to 4.78 million (3.26%) in 1990 and to 6.69 million (3.88%) 1999. After that according to the latest projections of the world bank, this group will constitute 4.33% of the total population of 7.08% in 2010.

Epidemiology data of gout which vary in local population and hospital baset in several areas such as Malang, Semarang, Jakarta, Bandung. In the uric acid clinic in less than 2 years (2003-2005) there were 2100 new cases of gout with the diagnosis as follows osteoarthritis (69%) systemic lupuseritematous (6.4%) gout arthritis (4.2%) reumotoid arthritis (1.2 %) spandila arthritis (0.7%) systemic sclerosis (0.3%).

Gout is estimated to occur in 840 people out of every 100,000 people. The prevalence of gout in Indonesia occurs at the age of under 34 years by 32% and above 34 years by 68%.

In Indonesia, arthritis gout was first investigated by a Dutch doctor, in 1935. Which found 15 cases of severe gout in underprivileged communities in Java. The results of the 1988 study, in Bandung, Central Java, showed that among 4,683 people aged 15-45 years studied, 0.8% had high uric acid 1.7% and 0.05% of them had reached the stage of gout

(Prabowo, 2009). In Indonesia the first gout was examined by a Dutch doctor named Dr. Van Den Horst in 1935. He found that there were 15 patients suffering from severe gout in poor communities in Java.

To overcome the problem of gout, the action given in addition to drugs but also given therapeutic measures using an electric device called Ceragem. Ceragem is a leading family health equipment company in the world, originating from South Korea in 1998 and began marketing its products to international markets, namely the United States in October 1999. Until now Ceragem has been present in the world. Ceragem offers an opportunity for the public to try this medical device free of charge, without being charged at any Center in the world. Ceragem's marketing strategy is friendly and friendly service has made Ceragem's company a company that is loved by people everywhere.

The way this tool works is centered on the spine, where as we all know that the spine is the source of our life and is the center of the arrangement of nerves and related blood vessels with organ tubuh lainnya sehingga pada saat menggunakan alat ini akan can improve the problematic nerves and improve blood circulation throughout the body. The following are the working principles used by Ceragem alternative medicine.

Sorting is applying pressure with the fingers, which in Ceragem massage using jade on the five paths of chi and the chi holes on the back and the pressure comes from our body

Kop according to eastern health sciences has been used since ancient times and until now it still gets international recognition. Inserting the warmth of infrared light far from jade into the body of the sick with the aim, can widen blood vessels, so that blood will flow smoothly, help remove impurities in the body. Killing poisons in the body so that it can treat chronic diseases.

Far infrared ray is a safe life ray of warm effects can absorb and penetrate into the body so that approximately 12 cm and works by accelerating blood bleeding, killing cells that are not useful, germs and lumps. Can activate the hormone regeneration, which can prevent premature menopause aging

Chiropractic is a five severe health that is currently very popular in the country because it is able to correct the crooked and bent vertebrae and treat stressed nerves so that nerve function is back to normal.

Based on the results of a preliminary study conducted by researchers at Ceragem Center Jalan

Medan, it was found that the total number of gout sufferers (gout arthritis) was 40 people. From the above background, the researcher is interested in knowing how the effect of CERAGEM therapy on decreasing uric acid levels in Ceragem Center Jalan Medan, Lubuk Pakam District, Deli Serdang Regency

2 RESEARCH METHODS

This type of research is a quasi experiment (quasi-experimental) with a time series design model. That is, before the treatment is carried out, observations are made on the sample and after the treatment is also carried out several observations (Aziz, 2009).

In this study, researchers chose the sample of the study (gout sufferers). Furthermore, the measurement of uric acid levels in the blood (pre-test observation). After that gout sufferers are given ceragem therapy measures which will then be measured again uric acid levels in the blood (observasi *post-test*).

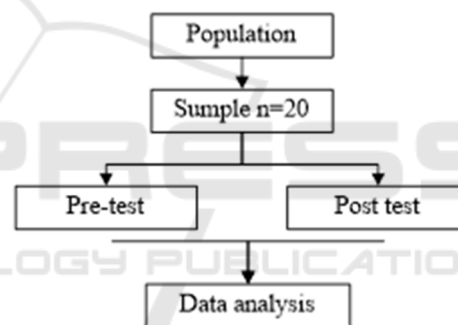


Figure 1: Research groove

Collecting data in this study using observation sheets and a measurement tool for uric acid levels in the blood using an electric device. Data collected through observation sheets are respondent demographic data (name, gender, age, level of education, occupation, and duration of therapy), the results of measurement of respondent's blood uric acid levels of respondents pre and post action. Tool specifications: Easy Touch Blood Glucose / uric acid dual function monitoring system. The name of the ET-1 model is the electrochemical method. Sample volume $\geq 4 \mu\text{l}$ (microliter), the type of blood sample is capillary blood. Test range 2-7 mg / dl, test time 20 seconds Validitas alat

Prior to use the tool has been tested for validity using strips that have been designed by the manufacturer and are a package with the tool. The strip is inserted into the instrument hole. Layer will

display the words "OK", then the tool will work correctly or valid. But if the "X" appears, then there is a problem with the tool or the tool is invalid. The instrument test results showed a blood uric acid test meter named easy touch with a sensitivity level of 99%.

Uniform is an alternative choice that bridges between western technology and heritage treatment (santi, 2009). The word Ceragem comes from the Greek, which means stone (jade) warmth. So, CERAGEM is a medical device that uses infrared light technology combined with jade in a high-tech machine..

Benefits of Ceragem Therapy

The main principles of the benefits of this therapy are

- a) Detecting
- b) Healing

Various diseases that can be cured such as kidney disorders, diabetes mellitus, heart disease, gout, high blood pressure, stomach disorders, strokes, and others.

- c) Take care

3.Principles of Ceragem Therapy Work

- a) Massage

Sorting is to apply pressure with the fingers, which in ceragem massage using jade on the five paths of chi and chi holes in the back and the pressure comes from our body. By sorting in these parts, the Ceragem is made in such a way as to conform to the shape of the human body.b) b. Kop

According to Eastern health sciences Kop has been used since ancient times and until now it still gets international recognition. Entering the warmth of infrared rays far from the jade into the body with temperatures between 60-70 ° C in a certain period of time in the sick body part in order to be able to widen blood vessels, so that will accelerate blood circulation, help remove impurities that are in body, as well as killing poisons in the body so that it can treat chronic diseases.

- c) Infra Red

Is the light of life with the same warm effect can absorb and penetrate into the body up to approximately 12 cm and work by accelerating blood circulation, killing cells that are not useful, germs and bumps, can activate the regeneration hormone that can prevent aging and premature menopause

- d) Chiropractic

Chiropractic is a western health science that is very popular in developed countries because it is able to correct the crooked and bent vertebrae and treat affected nerves so that normal nerve function returns to normal.

All stages of the principle of work carried out within 30 minutes. Divided into two sessions, the first session of the spine centered at 13 points and the hips, second, the session of the body centered at 3 points on the stomach. Given the time of jade suppression and irradiation of far infrared rays for two minutes. Provision of far infrared rays is not done continuously but rotates.

This is a Ceragem therapy tool that is used for patients who have gout complaints, this tool is very easy to get because it can be ordered directly to the Ceragem therapy center or can be ordered via online



Figure 2: Ceragem Therapy Tool

Ceragem is a medical device that uses infrared technology combined with jade in an advanced technology machine. There are four main principles of ceragem treatment namely massage, knob, far infrared and chiropractic (spine) as a step in the healing process.

The principle of order in the human body is believed to be eastern society has a flow of chi. When attacked by disease, the flow of chi becomes obstructed and as a result the body's metabolism does not run normally and then the body is sick. With jade totaling nine pieces on ceragem will put pressure on the body at 12 points in the spinal region and three points on the stomach, so that blood flow will be smooth, he infrared light emitted can penetrate to a depth of 14 centimeters.

The therapeutic process will give effect to the treatment of the illness suffered by the patient. But don't worry, because if the body feels hot, jade will

move to other parts of the body by itself. While the principle of cupping, is believed to be able to provide stimulation, activate cell function, help produce cells, cleanse blood vessels to improve blood circulation, improve nerves and deactivate metabolism until the body's antibodies increase.

The infrared ray that blends when jade puts pressure on the points on the body at the source of the disease. Detection results seen on the skin becomes reddish because blood circulation in the body is not smooth.

The last principle is Chiropractic or spine. Ceragem, according to Ratri, is indeed a treatment that believes that the source of various diseases comes from the spine. The backbone, he said, has a nervous system that is vital for the body. When the body is disrupted, it is believed that the problem can originate in the spine.

All principle stages are carried out within 30 minutes. Divided into two sessions, the first session of the spine and hips and second, the body session. At 13 points on the spine and three points on the abdomen were given time to press with jade and irradiated far infrared light for two minutes. Provision of far infrared light is not done continuously but rotates.

3 RESULT AND DISCUSION

Data distribution of respondents based on age 40-50 years amounted to 6 people or 30.0%, aged 51-60 years amounted to 14 people or 70% in the control group and in the intervention group aged 40-50 years there were 14 people and aged 51-60 a total of Date distribution of respondents based on age 40-50 years amounted to 6 people or 30.0%, aged 51-60 years amounted to 14 people or 70% in the control group and in the intervention group aged 40-50 years there were 14 people and aged 51-60 a total of Date distribution of respondents based on age 40-50 years amounted to 6 people or 30.0%, aged 51-60 years amounted to 14 people or 70% in the control group and in the intervention group aged 40-50 years there were 14 people and aged 51-60 a total of 6 people in the intervention group as in Table 1. This is in accordance with the existing theory that the aging process is very influential in the process of knee osteoarthritis (Elisabet, JC 2011). there were 20 respondents from two intervention groups

Table 1: Characteristics of Respondents

Information	Control Group		Intervention Group	
	n	%	n	%
Age				
40-50	6	30 %	14	70%
51-60	14	70 %	6	30%
Total	20	100%	20	100%
Education				
SD	16	80 %	12	60 %
SLTP	3	15%	5	25%
SLTA	1	5%	3	15 %
Total	20	100%	12	100%
Profesion				
IRT	8	40%	4	20%
PNS	3	15%	5	25%
Petani	4	20%	4	20%
Wiraswasta	5	25%	7	35%

This is thought to be related to the hormone estrogen, where adult women have less calcium in bone than in adult men and after menopause the estrogen hormone disappears quickly, causing women to lose calcium in bones faster than men of equal age. The disappearance of the hormone estrogen quickly causes an increase in osteoclast activity, reduced osteoblastic activity in bone, reduced bone matrix and reduced intake of calcium and bone phosphate (Kumar, V., 2011).

These data confirm that with A person's age increases the risk of inflammation or calcification in the joints, especially in the knee joint because the knee joint is the most mobile joint and sustains weight. Whereas for the sexes that suffer the most osteoarthritis, they are women, this is due to the monopouse process which causes hormonal changes

Pain measurement results obtained that the average value of acid level Uric Acid Levels above can be seen that the effect of pharmacological therapy on decreasing levels of uric acid before and after pharmacological therapy is 20%. Based on the results of statistical tests using the paired t-test formula obtained 0.926 from the results of this test it can be concluded that there is no effect before and after regular pharmacological therapy.

Table 2: Difference in Mean Uric Acid Levels Before and After Performin Pharmacological Therapy

Mean differences between before and after pharmacological therapy
Mean differences between farmakologi = 80.8571
Mean differences between pharmacological therapy = 80.5714
Mean differences between before and after pharmacological therapy = 0.2857

Based on the results of statistical tests using dependent sample t-test / paired t test showed that the average uric acid level before pharmacological therapy was 80.8571, the average uric acid level after pharmacological therapy was 80.5714 and the difference in uric acid levels before and pharmacological therapy was 0.2857.

The Influence of Ceragem Therapy on Decreasing Uric Acid Levels at Ceragem Center it can be seen that the effect of pharmacological therapy on decreasing uric acid levels before and after ceragem therapy is 85%. Based on the results of statistical tests using the paired t-test formula obtained 0.009 from the results of this test can be concluded that there is a significant influence before and after ceragem therapy.

Table 3 : Difference in Mean Uric Acid Levels Before and After Performing ceragem therapy

Mean differences between before and after ceragem therapy
Mean differences between before ceragem = 81.8571
Mean differences between after = 79.1429
Mean differences between before and after ceragem therapy = 2.7142

Based on the results of statistical tests using dependent sample t-test / paired t test showed that the average uric acid level before pharmacological therapy was 81.8571, the average uric acid level after pharmacological therapy was 79.1429 and a significant difference in uric acid levels before and the pharmacological therapy was 2.7142

From the results of observations before pharmacological therapy carried out to respondents who became the control group were respondents who had high blood uric acid levels of 16 people (80%), respondents who had normal blood uric acid levels of 4 people (20%), while after pharmacological therapy carried out to the same respondent results obtained are respondents who have high blood uric acid levels of 15 people (75%), respondents who have normal

blood uric acid levels of 5 people (25%), Based on the results of statistical tests that Using the paired t-test formula, the mean (mean) value for before therapy = 80.8571 and for after therapy = 80.5714. And for the value of paired samples correlations = 0.926 from the results of this test it can be concluded that there is no effect before and after regular pharmacological therapy.

Uric acid is the final product that is excreted from the breakdown of purines in humans. In other animals, gout undergoes further degeneration into alantoin. In normal humans, 18-20% of lost uric acid is broken down by bacteria into CO₂ and ammonia (NH₃) in the intestine and excreted through feces.

In normal people, the amount of uric acid pool is approximately 1000 mg with a turnover speed of 600 mg / day. The normal content of sodium urate in the serum is less than 7 mg / dl (Martin et. Al, 1984). Based on clinical laboratory studies, normal uric acid levels for women range from 2.4-5.7 mg / dl and for men ranging from 3.4-7 mg / dl. If serum uric acid levels exceed the above standards, it is called hyperuricemia.

The way jade works is centered on the spine, which as we all know that the spine is the source of our life and is pusat susunan saraf dan pembuluh darah yang relate to other body organs so that when using this tool will be able to repair the problematic nerves and facilitate blood circulation throughout the body. The following are the working principles used by Ceragem alternative medicine.

From the results of observations that have been made in the intervention group conducted to respondents who become the intervention group are respondents who have high blood uric acid levels that are 11 people (55%), respondents who have normal blood uric acid levels are 9 people (45%). Based on the results of statistical tests using the paired t-test formula, the mean value obtained before ceragem therapy = 81.8571 and for after ceragem therapy = 79.1429. And for the value of paired samples correlations = 0.009 from the results of this test it can be concluded that there is a difference between the influence of the split apart before and after therapy.

4 CONCLUSION

Based on the results of the statistical tests and the discussion above, it can be concluded that

Based on the results of the statistical tests and the discussion above it can be concluded that Kadar Uric Acid Before and after Pharmacological Therapy in the Control Group at the Ridos Clinic menteng

sandpaper road, From the results of observations before pharmacological therapy carried out to respondents who were in the control group were respondents who had high blood uric acid levels of 16 people (80%), respondents who have normal blood uric acid levels are 4 people (20%), whereas after pharmacological therapy is carried out to the same respondent, the results obtained are respondents who have high blood uric acid levels that is 15 people (75%), respondents who have levels Normal uric acid blood is 5 people (25%). Based on the results of statistical tests using the paired t-test formula, the average value obtained (before) = 80.8571 and after therapy = 80.5714.

Uric Acid Levels Before and After Ceragem Therapy, From the results of observations that have been made in the intervention group conducted to respondents who are in the intervention group, those are respondents who have high blood uric acid levels, 11 people (55%), respondents who have blood uric acid levels normal, 9 people (45%). Based on the results of statistical tests that are menggunakan rumus *paired t-test* diperoleh nilai he mean (mean) for before ceragem therapy = 81.8571 and for after ceragem therapy = 79.1429. And for the value of paired samples correlations = 0.009 from the results of this test it can be concluded that there is a difference between the influence of the split apart before and after therapy.

5 SUGGESTION

As input and additional knowledge for health services about the effect of uniform therapy on reducing uric acid levels. It is expected to be able to increase knowledge and insight about the effect of CERAGEM therapy as a cognitive behavior to reduce levels of uric acid. As input in the development of science in further research. From the results of this study provide an overview and reference of research results about ceragem therapy as a cognitive behavioral therapy to reduce uric acid levels which will be used in conducting further research. To increase knowledge and experience in conducting special research on the effect of Ceragem therapy on reducing uric acid levels.

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