

# The Effect of Etawa Milk Feeding on the Weight of Pulmonary TB Patients in Tanjung Rejo Health Center

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## ABSTRACT

Pulmonary tuberculosis (TB) is an infection caused by mycobacterium tuberculosis. This bacteria infects the lungs. Sufferers usually experience symptoms of old cough to bloody cough, decreased appetite, weight loss. This study aims to determine the effect of Etawa milk feeding on weight gain in pulmonary TB patients at the Tanjung Rejo Health Center. This research uses research design with a quasi-experimental approach and design one group pre and posttest design with group control. This research was conducted from January 30 to February 13, 2019. This study's population was pulmonary TB patients using The Side Purposive technique and the number of up to 30 people. Results of lung TB patients majority pre-milk Etawa lung TB patients weight 45 kg as much as eight people (26.7%) the majority of post milk Etawa lung TB patients weight 48 kg as much as eight people (26.7%) obtained a significant value p-value  $(0.018) < (0.05)$  there is an influence of Etawa milk feeding on weight gain in pulmonary TB patients at the Tanjung Rejo Health Center. The study results found that Etawa milk feeding can improve the appetite that results in weight gain. It is recommended that patients practice the efficacy of Etawa milk for traditional treatment of pulmonary TB disease

**Keywords:** milk Etawa, pulmonary TB, weight

## INTRODUCTION

Pulmonary tuberculosis (TB) is one of the infectious diseases that are still a problem today, not only in developing

countries but also in developed countries. The World Health Organization (WHO) estimates a third of the world's population has been infected by pulmonary TB. This is evidenced by many people with pulmonary TB found in the community, and since 1993, WHO stated that pulmonary TB is a global emergency for humanity. (WHO, 2015).

The World Health Organization estimates 9 million new tuberculosis cases occurred globally in 2013, and as many as 480,000 of them are multi-drug-resistant TB (MDR-TB). Only a quarter of the number of MDR cases (approximately 123,000) was detected and reported. Meanwhile, XDR-TB was written in 105 countries in 2015. About 9.7% of patients with MDR-TB are estimated to have XDR-TB (WHO, 2015).

The number of new TB cases in Indonesia was 420,994 cases in 2017 (data as of May 17, 2019). By gender, the number of new cases of tuberculosis in 2017 in men was 1.4 times greater than in women. Even based on the Tuberculosis Prevalence, Survey prevalence in men is three times higher than in women. So is the case in other countries. This is likely because men are more exposed to the risk of tuberculosis, such as smoking and lack of non-compliance with medication. The survey found that of all male participants who smoked, 68.5% and only 3.7% of female participants smoked. (Ministry of Health, RI, 2019).

Health Office (Dinkes) North Sumatra (North Sumatra) the number of the discovery of pulmonary TB patients with positive BTA in 2016 as many as 14,227 patients, with an average case detection rate (CDR) of 40.09%. In 2017, Cross Notification Rate / CNR (new cases) lung TB BTA (+) in North Sumatra only reached 105.02/100 Achievements per District / City, 3 (three) highest are the city of Medan of 3,006/100,000, Deli Serdang Regency of 2,184/100,000 and Simalungun of 962/100,000). While the 3 (three) lowest districts are West Nias Regency at 50/100,000, Pakpak Bharat at 67/100,000, and Gunung Sitoli at 68/100,000 (North Sumatra Health Office 2019).

Data from the Deli Serdang District Health Office stated an increase in pulmonary TB cases in Deli Serdang Regency in 2016. The incidence of pulmonary TB in 2016 was 130/100,000, with an additional 53.72% of new possibilities and an 89.3% percentage of curable tuberculosis cases. Puskesmas Tanjung rejo is one of the health centers in Deli Serdang district experienced an increase in pulmonary TB sufferers in 2016 CDR figure of 55.1%, to 60.9% in 2016 and 2017 increased to 72.94% (Dinkes Deli Serdang, 2017).

Pulmonary TB is an infection caused by mycobacterium tuberculosis. This bacteria infects the lungs. Sufferers usually experience long coughs to bloody cough, decreased appetite, weight loss, not very high dream, night sweats, enlarged lymph nodes, and others. Weight loss in pulmonary TB suspect is a result of symptoms arising from this disease itself. Decreased appetite in sufferers is usually caused by perceived nausea. Complaints of vomiting are also often felt, which is the cause of one of the weight loss. Some researchers also found that in the blood plasma of people with pulmonary TB, there was a decrease in leptin concentration (Bambang Sukana et al. 2013)

Leptin is an indicator used to indicate the mass of fat stored in tissues, as

well as appetite. This lack of leptin leads to weight loss in sufferers. People with pulmonary TB should take medication every day for six months or more. Drugs consumed over a long period of time certainly have side effects. One of them is usually the condition of nausea and vomiting, which again affects the appetite. Weight loss is due to less energy coming in than the energy needed. Consumption of healthy and nutritious foods, intersing with the consumption of calorie snacks, adequate rest, regular exercise and manage stress can help. One of the proteins can be obtained by consuming etawa milk (Bambang Sukana, et al. 2013)

Several studies have tried the effectiveness of goat milk etawa against mice. From the results of the study found that mencit given goat's milk has a high bioavaibilita to copper, zinc, and selenium milk etawa has a minimal allergic response compared to cow's milk, goat milk slightly stimulates lymphotic cell sensitivity so that it becomes a significant decrease in lymphocyte cells that undergo proliferation (Alsagaff, 2011).

Mack's 2015 study concluded that the group of children who were given goat's milk had weight, skeletal mineralization, bone density, low plasma vitamins, calcium, thiamine, riboflavin, niacin and their higher hemoglobin concentration when compared to thetomy of children who were given cow's milk. In addition, goat milk has a better buffer capacity so that it is beneficial for people with indigestion (Bambang Sukana, et al. 2013).

The utilization of goat's milk in tb patient therapy program obtained significant results. On average after 1 month of administration of anti-TB drugs accompanied by changes in diet and goat milk feeding 200 cc per day the health level of sufferers has changed. It is characterized by an improved appetite, coughing and reduced shortness of breath and the face does not look pale anymore (Hatta, 2019).

Based on the initial survey in Tanjung Rejo Health Center Deli Serdang

Regency on October 08, 2019 who suffered from pulmonary TB as many as 108 people in January-Okober 2019 and in October as many as 83 people and have been given to 3 people from 5 pulmonary TB patients in November who were given liquid etawa milk 250 cc per day for two weeks there was an initial patient BB 45 kg to 47 kg , the second patient with BB 48 kg to 50 kg and the third patient with BB 49 kg mejadi 50 kg by drinking milk etawa proven to increase appetite after regularly drinking milk etawa. It is seen that many pulmonary TB patients are experiencing a decreased weight.

### LITERATURE REVIEW

Tuberculosis (TB) also known by the abbreviation tuberculosis is an infectious disease that causes the second largest health problem in the world after HIV. The disease is caused by basil from the bacterium *Mycobacterium tuberculosis*. Tuberculosis itself can attack any part of the body, but the most common and common is tuberculosis infection of the lungs. The spread of this disease can occur through people who already have tuberculosis. Then, coughing or sneezing spouts saliva that has been contaminated and inhaled by healthy people whose immunity is weak to tuberculosis. Although it usually attacks the lungs, it can also affect other bodies, such as the central nervous system, heart, lymph nodes, and others. Indonesia itself is among the top five countries with the highest number of TB sufferers in Southeast Asia with the number of people with 305,000 people in 2012. If latent tuberculosis or tuberculosis does not receive treatment, more than 50 percent of people with the disease may die. Even so, only one in ten cases develops into an active disease. In the case of latent tuberculosis, the bacteria that cause tuberculosis are not yet clinically active and are only in the body. If already active, symptoms will occur in a certain period can be in a matter of weeks or years. The duration of course depends on the health condition and endurance of the sufferer.

The cause of tuberculosis is bacteria that spread in the air through bursts of saliva from coughing or sneezing tb sufferers. The name of tb bacteria is *Mycobacterium tuberculosis*. Here are some groups of people who have a higher risk of contracting TB: People whose immune systems are declining. For example, diabetics, people undergoing chemotherapy, or people with HIV/AIDS. People who are malnourished or malnourished. Drug addict. Smokers. Medics who are often in contact with people with TB.

### MATERIALS & METHODS

This research uses research design with quasi experimental approach and design one group pre and post test design with group control. This research was conducted from January 30 to February 13, 2019. The population in this study was pulmonary TB patients using The Side Purposive technique and the number of up to 30 people.

Table 1. weight distribution in pulmonary TB patients before giving etawa milk at Tanjung Rejo Health Center

Weight	N	Persentase
43 Kg	3	10.0
44 Kg	4	13.3
45 kg	8	26.7
46 kg	6	20.0
47 kg	5	16.7
48 kg	4	13.3
Jumlah	30	100

Based on table weight distribution in pulmonary TB patients in Tanjung Rejo Health Center the majority of lung TB patients weigh 45 kg as much as 8 people (26.7%)

### RESULT

Distribution of statistical test results the effect of etawa milk feeding on weight gain in pulmonary TB patients in Tanjung Rejo Health Center can be seen from the table below:

**Table 2. Distribution of statistical test results The effect of breast-feeding on weight gain in pulmonary TB patients**

Weight	Mean	Mean rank	p	t
Pair 1 Pre-test	45.57	1.569	.018	.049
Post-test	45.50	8.059		

Based on descriptive statistical test results from pre-test and posttest results. There are differences in the value of pretest and posttest milk feeding etawa. As well as a significant value of  $0.018 < 0.05$  means there is an influence of breast-feeding on the weight gain of pulmonary TB patients.

Pre-test in pulmonary TB patients at Tanjung Rejo Health Center

Based on table 3 weight distribution in pulmonary TB patients in Tanjung Rejo Health Center the majority of pulmonary TB patients weigh 45 kg

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Some researchers also found that in the blood plasma of people with pulmonary TB, there is a decrease in leptin concentration. Leptin is an indicator used to indicate the mass of fat stored in tissues, as well as appetite. This lack of leptin leads to weight loss in sufferers. People with pulmonary TB should take medication every day for 6 months or more. Drugs consumed over a long period of time certainly have side effects. One of them is usually the condition of nausea and vomiting, which again affects the appetite. Weight loss is due to less energy coming in than the energy needed.

According to researchers assumptions pulmonary TB disease causes weight loss because people with pulmonary TB lose their appetite and difficulty sleeping at night resulting in reduced rest time.

Posttest in pulmonary TB patients at Tanjung Rejo Health Center

## DISCUSSION

Based on table 4 weight distribution in pulmonary TB patients after drinking milk etawa in Tanjung Rejo Health Center the majority of lung TB patients weigh 48 kg as much as 8 people (26.7%). To increase the weight of pulmonary TB patients can be done with nonchemical treatment that is to consume goat's milk regularly, accompanied by medical treatment. Goat milk contains high fluorine with a content 10-100 times higher than cow's milk. This element is a natural antiseptic that contains elements to prevent the growth of tb bacteria. Fluorine will increase endurance and suppress the growth activity of tb bacteria.

Fluorine can also provide tissue protection to the lungs and protect the kidneys and liver. The fat content in goat's milk serves as an incendiary substance so that the patient's body becomes warm. Thus, goat's milk has a double effect that is for protection, prevention as well as healing.

Goat milk also contains high sodium. In case of tuberculosis, one of the triggers is malnutrition. By giving goat milk regularly every day, the sodium contained in it serves to inhibit the malnutrition.

Based on descriptive statistical test results from pre-test and posttest results. There are differences in the value of pretest and posttest milk feeding etawa. As well as a significant value of  $0.018 < 0.05$  means there is an influence of breast-feeding on the weight gain of pulmonary TB patients. Etawa Goat Milk Protein Content Is Almost Equivalent to Breast Milk

Goat milk for your weight is not just a thumbs up. The protein content in goat's milk exceeds chicken eggs and is almost equivalent to breast milk. You certainly know, that newborns and only drink breast milk experience very rapid weight growth. Similarly, goat milk etawa for adult weight.

Based on demographic data it is known that the majority of respondents'

income is Rp 3 million, with such income for the general public can guarantee the purchase for the treatment of pulmonary TB Nutritional Wealth of Goat Milk Makes You Gain Weight

The content of nutrients in goat milk etawa is certainly very much. A study in America mentioned that goat's milk is one of the foods with the most complete nutritional content ever.

Its contents include Vitamin A, Vitamin C, Vitamin E, protein, good fats, carbohydrates, fiber, vegetable fats, and energy. With so much nutritional wealth, it is no wonder that goat's milk can make thin body fat in the shortest possible time.

According to the assumptions of researchers in addition to consuming milk etawa consume healthy and nutritious foods, intersing with the consumption of calorie snacks, adequate rest, regular exercise and manage stress can help increase weight. But keep in mind, raising weight back to normal is not the way to cure an infection. Some bacteria are actually growing with dietary changes

## CONCLUSION

Based on the results of research on the influence of etawa milk feeding on pulmonary TB patients can be concluded as follows:

1. The weight of pulmonary TB patients before being given milk etawa in the health center tanjung rejo deli serdang district majority only 45 kilograms
2. The weight of pulmonary TB patients increased after being given milk etawa in the health center tanjung rejo deli serdang district the majority of weight 47 kilograms
3. Based on descriptive statistical test results from pre-test and posttest results. There are differences in the value of pretest and posttest milk feeding etawa. As well as a significant value of  $0.018 < 0.05$  means there is an influence of breast-feeding on the weight gain of pulmonary TB patients

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