

# Tonic Effect of Traditional Ingredients in Performance

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**Abstract**—The purpose of this study was to determine the effect of combining honey and eggs as an additional supplement into improving the endurance of badminton athletes. This study is a pre-experimental study which is used to find a cause-and-effect relationship and not uses control group so using research design of one-group pre-posttest design, with the number of samples counted 15 people. Based on the results of data analysis, it was found that supplementary addition of honey and eggs before the test was done to give a significant effect compared to the initial test conducted on the same sample without intervention. Provision of honey and eggs was made one hour before the exercise activity resulted in maximal endurance performance of the data showed that the mean value of endurance after being given honey and egg combination supplement on badminton athlete was 41.627 ml/kg/min, higher than the value The average initial resistance at the badminton athlete before the intervention is 37.407 ml/kg/min, so it can be concluded that there is significant influence from supplementary supplement combination of honey and egg to increase endurance athlete.

**Keywords**—*traditional herb, tonic, performance*

## I. INTRODUCTION

A strong desire to win in a sports event, both for self, family, and national pride, causes athletes, coaches, or parents of athletes to justify any means. Often, the method used is to regularly take drugs, or certain substances so that the body muscles become large and strong. No need to ask the actors, we can guess that achievements, prestige, ambition, bonuses, money, fame, the hustle and bustle of pat and praise are the answers to why an athlete uses doping. It could be an athlete only a tool for covert ambitions of an organization's parent institution, or anyone who is behind the scenes, or even a country. The value of sportsmanship in some sports is often tainted by the use of doping drugs consumed by athletes. Increasingly intense sports competition makes some athletes often justify various methods.

So far, if a sportsman is suspected and at the next examination is really proven to be using doping, then he is the main defendant, there may be a scapegoat who plays a role but escapes sanctions or, not infrequently the sportsman is a true doping user who designs it systematically for the sake of an achievement.

Honey is one of the human food ingredients produced by bees, "Honey is a special food and has a high nutritional value, in addition to honey can also be used as a medicine." One of the most popular is the provision of a combination of honey and chicken eggs to increase body stamina; honey is known to be rich in glucose and Fructose which is the source of energy [1]. Honey is a food that contains various nutrients such as carbohydrates, proteins, amino acids, vitamins, minerals, dextrin, aromatic plant pigments. Even from the results of research and food, honey contains the highest carbohydrate among other livestock products such as milk, eggs, meat, cheese and butter around (82.4% higher) every 100 grams of pure honey is worth 294 calories or a ratio of 1000 grams of honey pure equivalent to 50 chicken eggs or 5.675 liters of milk or 1680 grams of meat. As an organic product produced by bees, honey has been used since ancient times as a sweetener. Ancient Egyptians, Greeks, and Romans used honey for cakes, drinks and seasonings, besides honey has also been used by ancient Egyptians to treat burns, stimulate urinary secretions, stomach aches, overcome muscle cramps, treat shortness of breath, fever and is used to preserve mummies. Tropical honey has also been proven to prevent damage to the cornea.

Honey is very easy to digest which makes people get vitamins and minerals that are very important during healing. The value for each honey nutrient is higher than just a health benefit; however, unlike sugar, honey has the extraordinary ability to heal you from the inside and continue to help keep you healthy. One of the benefits of consuming honey is that it contains a small number of various minerals needed by the human body, such as iron, copper, manganese, silica, chlorine, calcium, potassium, sodium, phosphorus, magnesium and aluminum.

Eggs contain lots of good protein for muscle. Particularly for endurance exercise requires a good aerobic or cardiorespiratory level, it can often be represented by maximal absorption of oxygen (V02max) and endurance levels, on the other hand, short-range running and strength exercises are more likely to depend on anaerobic activity and muscle velocity. The two main sports disciplines involve different types of muscle metabolism. Sprint and other sports that require explosive power require anaerobic muscle metabolism, while endurance exercise depends on aerobic metabolism [2].

Endurance exercise is an exercise that requires a lot of stamina, so today many athletes are taking supplements that can increase endurance when consumed before exercising to support their performance in the field, such as athletes who want to gain extra energy or to speed up recovery after exercise often found to consume honey and eggs. Meanwhile, there is no direct research that observes how the effects of tonic from the combination of honey and eggs in maintaining endurance athletes during exercise, so the authors interested in doing research to see how the effect of supplement combination of honey and eggs This affects the increase in the endurance of badminton athletes.

## II. METHODS

This study is a pre-experimental study which is research used to find a cause-effect relationship where randomization is not done and do not use a control group. Design research using the one-group Pre-posttest Design. In this study selected a group of subjects or experimental units. Before the treatment is given, a measurement (pre-test) is then given treatment and at the end of the activity or after being given intervention, re-measurement (post-test). The results of the pre and post-test will be compared to see the difference in the value of the variables after the intervention is given.

## III. RESULTS

Empirical data obtained in the field of test results and endurance measurements conducted before and after the intervention. Descriptive data analysis is intended to obtain a general overview of data covering average, standard deviation, variance, maximum data, minimum data, range, frequency tables, and graphs.

Furthermore, testing the requirements of the analysis of data normality test, for testing the hypothesis using a t-test to find the answer the effect of the tonic combination of honey and eggs to the endurance of common athletes BKMF badminton FIK UNM.

The research located on the campus of Faculty of Sport Sciences Universitas Negeri Makassar with the entire population of BKMF active badminton FIK UNM, while the initial sample in this study amounted to 25 people with the age of 18-21 years, but only 15 samples were present when the intervention will be done and Final test so that only 15 sample data were used in subsequent data analysis, by analyzing the results obtained from the initial resistance test and endurance test after the intervention of 15 samples.

TABLE I. ENDURANCE DISTRIBUTION OF ATHLETES

Endurance	N	Mean	Std. Dev.
Score Endurance before	15	37.407	5.5765
Score Endurance with honey and egg	15	41.627	5.4783

Based on Table 1. shows the endurance of badminton athletes before the intervention has mean (37.407) with standard deviation of 5.5765 while endurance with after supplement combination of honey and eggs at badminton athlete has mean of 41.627 with standard deviation of 5.4783, mean of endurance With the combination of honey and eggs in badminton athletes higher than the average initial resistance on badminton athletes.

TABLE II. TONIC EFFECT OF HONEY AND EGG ON ATHLETIC ENDURANCE

Endurance	Mean (S.B)	P
Score Endurance before	37.407(5.5765)	<0.001
Score Endurance with honey and egg	41.627 (5.4783)	

Based on Table 2., it was found that the mean of endurance with a combination of honey and eggs at badminton athlete 41.627 ml / kg / min was higher than the mean of initial resistance at badminton athlete 37.407 ml/kg/min. The result of the analysis used Paired T-test with trust level ( $\alpha = 0.05$ ). Based on these tests, the results obtained with a value of  $P < 0.001$  ( $p < 0.05$ ) then  $H_0$  is rejected, so it can be concluded that there is a difference in endurance durability of athletes after supplementation with a combination of honey and eggs when compared with the initial results in badminton athletes or in other words There is a positive correlation or significant relationship in the provision of a combination of honey and eggs as an additional supplement to the increased endurance of badminton athletes.

## IV. DISCUSSION

The results of this study confirm the results of previous studies on the benefits of honey and eggs either consumed separately or simultaneously these two food mixtures are known to be very useful to improve the quality of human health. Based on the hypothesis test in this study obtained the result that supplementary addition of honey and eggs before the test performed to give a significant effect than the initial test conducted on the same sample without intervention. Provision of honey and eggs was made one hour before the exercise activity resulted in maximal endurance performance of the data showed that the mean value of endurance after being given honey and egg combination supplement on badminton athlete was 41.627 ml / kg / min, higher than the value The average initial resistance at the badminton athlete before the intervention is 37.407 ml / kg / min. Combined between eggs with honey is generally consumed by the community by drinking directly after mixing the two ingredients. "The benefits of honey and eggs are considered to be more effective if taken immediately after the mixing process of the two. Can optimally prevent the body from disease, Increase vitality, and speed up recovery after heavy activity. "Consumption of health drink concoction of honey and eggs regularly and regularly improves the quality of the functions of the organs in the body." The content of glucose, fructose, and sucrose in honey is rapidly absorbed by the bloodstream, giving instant energy and increasing stamina [3]. Even in small amounts of energy content due to its high-calorie content, it becomes an effective remedy for fatigue. Returns the oxygen-glucose that is replaced by lactic acid during fatigue.

## V. CONCLUSION

Based on data analysis and discussion then the results of this study confirm the results of previous studies on the benefits of honey and eggs both consumed separately or together these two mixtures of food ingredients are known to be very useful for improving the quality of human health. The benefits of honey and eggs are known to be more effective if taken directly immediately after the mixing

process of both, the benefits of honey and egg mixture are due to the nutritional content of both can complement each other, so that the body can optimally prevent the disease, increase vitality, and accelerate recovery after heavy activity. Consumption of concoction of honey and egg health drinks regularly and regularly will improve the quality of the functions of organs in the body, results of this study can be concluded that there is a positive effect of additional tonic effect of the combination of honey and eggs to increase endurance athlete badminton FIK UNM.

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