

Chocolate Beverage Interventions Against Futsal Athlete Muscle Strength at Politeknik Negeri Jember

Sarifah Novita Sari

Nutrition Study Program

Health Department

ABSTRACT

Nutritional intake to meet energy when training an athlete must be considered for the smooth running of the activities carried out. Cocoa is a type of fruit containing carbohydrates (4.10 kcal / gram), fat (9 kcal / gram), protein (4.1 kcal / gram), and antioxidants. The composition of nutrients in cocoa beans serves to provide energy in the body. The purpose of this study was to determine the effect of providing chocolate drinks on the muscle strength futsal athletes at Politeknik Negeri Jember. The research method used was Quasi Experimental with the design of Pretest-Posttest with Control Group, the technique in taking the subject of this study used a total sampling technique, with a subject population of 30 athletes. Measurement of muscle strength tests using a leg and back dynamometer. Statistical analysis of this study used SPSS 16.0 for Windows with the *Kruskal Wallis* and the *Wilcoxon* test. The results showed the muscle strength values before the chocolate drink intervention did not have a difference between the control and treatment groups ($p = 0.327$), after the chocolate drink intervention there were differences in the muscle strength values between the control and treatment groups ($p = 0.012$) and the difference in muscle strength mean against the groups control and treatment have a value ($p = 0.003$). The conclusion of this study is that there is an influence of chocolate drink intervention and protein intake ($p < 0.05$) on the muscle strength of futsal athletes.

Keywords: futsal athletes, muscle strength, antioxidants, chocolate drinks.