

How Rice Likelihood is Associated With Ketones in Urine?

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Abstract: The body produce ketones by burning fats in the short supply of energy in the form of glucose. The pouring of ketones into the urine is known as ketonuria. High level of ketones in urine is the sign of diabetics. The normal range of ketones is usually 1.5-3mmol/L. If higher than normal amount of ketones is present in urine then the person shows some type of symptoms such as dry cool skin, fatigue, high blood glucose concentration. Confusion, abdominal pain and deep breathing. Depending upon the concentration of ketones in urine, the patients show different symptoms like dry mouth, fatigue, fruity smell in urine and breath, urgent need to urination and vomiting. Rice is the cereal crop which is full of starch and carbohydrates. It can provide about 80% of the daily calories required by the human body. Most of the people are completely dependent on rice rather than wheat. Most of the people think that their diet remains incomplete without rice. The basic purpose of this study is to know about the relationship between urine ketones with rice likelihood. The amount of ketones in urine is determined by urinalysis test. To do this, urine sample was collected from random individuals. Few of them were diabetic patients. Test was performed by dipstick method. There were 100 subjects who participated in this study. These subjects were the students of BZU (Bahauddin Zakariya University Multan Pakistan).

Keywords: Ketones, Urine Sample, Rice Likelihood, Test Strips

1. INTRODUCTION

When a person does not take sufficient amount of glucose, then his body gets energy by burning fats. This process produces ketone bodies which can be seen in blood or urine of that person. The pouring of ketones into the urine is known as ketonuria. High level of ketones in urine is the sign of diabetics. The normal range of ketones is usually 1.5-3mmol/L. If higher than normal amount of ketones is present in urine then the person shows some type of symptoms such as dry cool skin, fatigue, high blood glucose concentration. Confusion, abdominal pain and deep breathing. The diabetic patients have greater risk of having high level of ketones in their urine due to insufficient intake of insulin or ineffective dosage of insulin. Moreover, those people who undergo critical situations such as pneumonia, pregnancy, heart attack, alcohol abuse, fasting or high fever have also greater chance of having ketones in urine. Depending upon the concentration of ketones in urine, the patients show different symptoms like dry mouth, fatigue, fruity smell in urine and breath, urgent need to urination and vomiting. The level of ketones in urine can be tested by using test strips which changes its color if ketone level is high in urine. Moreover, further test may carried out according to situations. These test include chest X-ray, CT scan, ECG, blood culture test etc. A patient should check his ketone level when hid blood sugar level is greater than 240 mg/dl because it shows the deficiency of insulin. If ketones level is high then it is recommended that a person should drink a plenty of water for the fast removal of ketones from urine (1).

Rice is the cereal crop which is full of starch and carbohydrates. It can provide about 80% of the daily calories required by the human body. Most of the people are completely dependent on rice rather than wheat. The habit of eating rice depends upon several factors such as taking less time to cook, easy to cook, full of nutritional substances, fragrance and taste. Different strains and varieties of rice are available all over the world. However, it cannot grow in some areas due to the shortage of water supply because it is water loving plant. Nowadays researchers are interesting to modify the genetics of this plant and try to make it drought resistant. It is one of the most important crops in the Asian countries. Most of the people think that their diet remains incomplete without rice. Moreover, it can say that rice can fulfill all the nutrients required by the human body for the cellular activities (2).

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The basic purpose of this study is to know about the relationship between urine ketones with rice likelihood.

2. MATERIALS AND METHODS

2.1. Measurement of Urine Ketones

The amount of ketones in urine is determined by urinalysis test. To do this, urine sample was collected from random individuals. Few of them were diabetic patients. Test was performed by dipstick method. The strips were dip into the urine sample and dry them for few seconds. After that, the colors of that strip were matched with standard strip and find the difference and values.

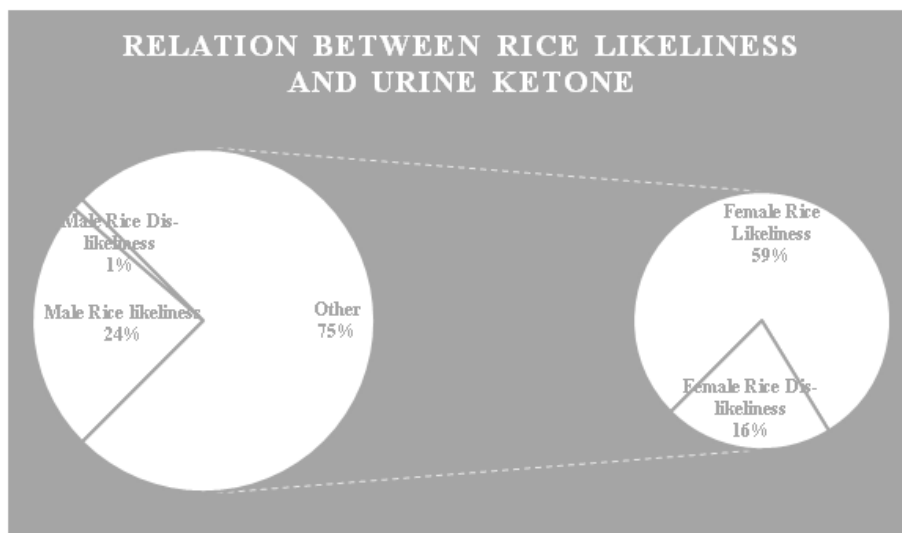
2.2. Project Designing

There were 100 subjects who participated in this study. These subjects were the students of Bahauddin Zakariya University Multan Pakistan.

3. RESULTS

In this study 100 students of Bahauddin Zakariya University of Multan were taken part. They were asked to take their urine sample of early morning because this urine is more concentrated and provide exact determination of solutes. Their urine samples were tested by dipstick method. The results of the present study show that 59% females have rice likelihood but they do not contain ketones in their urine while 16% females like to eat rice but ketone are also present in their urine. In case of male, 75% males show rice likelihood but 24% have rice likelihood and contain ketones in urine. However, only 1% males do not like to eat rice but contain ketones in urine. The higher percentage; 59% of females and 75% of male, who like to eat rice but do not contain ketones in urine show that ketones in urine is not correlated with rice likelihood.

The results of the present studies are given in the following graph.



4. DISCUSSION

The present studies provide the advancement in recent researches (3-10). This study was carried out to find that urine in ketones is either the result of rice likelihood and eating more rice or not? Previous studies show that the formation of ketones is the result of fat metabolism. It is when body required energy but glucose is not available. These ketones normally seen in blood but they may be in urine in small amount. Knott CD. Studies the changes in urine ketones with respect to fruit availability. The results of this study show that large amount of ketones seen in urine only during the period of shortage of fruit and linked with orangutan which is highly important fat storing material. The orangutan also related to the presence of ketones in urine when fruit are less available. In another study it is reported that Sandra C Van Calcar, Lewis A Barnes and Susan R Davidson found that the presence of ketones in urine is directly related with pregnancy condition in women.

5. CONCLUSION

The overall results show that there is no association between urine ketones and rice likelihood.

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