https://doi.org/10.46344/JBINO.2025.v14i05.02

IS THERE ANY RELATION OF BLOOD GLUCOSE LEVEL WITH THE TIME OF SLEEPING?

Muhammad Imran Qadir*, MahnoorIlyas,FarkhandaShaukat, Natasha Shafique, MuhammedAtifAmen

Institute of Molecular Biology and Biotechnology, BahauddinZakariya University, Multan, Pakistan

Email : mrimranqadir@hotmail.com

ABSTRACT

The objective of present study was to correlate blood glucose level with different option of sleeping time. Blood glucose level is designation of estimation of glucose concentration present in blood. If glucose level increases normally in blood, it produceschance of diabetes in person. In the present project total 122 students were participated. All were students of BahauddinZakariya University Multan, Pakistan and they were in between the age of 19 to 24 years. We measured glucose level through glucometer apparatus. We concluded that sleeping time has no impact on blood glucose level and vice versa.

Keywords:Blood, concentration, glucose

INTRODUCTION

Blood glucose level is name of estimation of carbohydrates (glucose) in blood. It's concentration varies with irregular activities of person.The glucose level in blood is measured by a device glucometer. Its level increaseswhen production of insulin decreases, it leads to sugar that is name as diabetes.Every year a lot of people died with this disease. In blood stream amount of ketone level rises due to large amount of glucose and low insulin level, that is produced by pancreas B cells. Hyperglycemia and hypoglycemia both adversely affect on health of patient immune system digestive system, nervous system. Mainly it leads to memory loss, unconsciousness and slow healing process of wound.

Sleep is relaxation state of body and it repairs cell and maintain themetabolism of body. Quality of sleep matters rather than its quantity. Sleep is controlled by circadian biological clock, and thermostat of body hypothalamus. If we take right amount of sleep then we can perform in well manner in our daily routine. Its deficiency is harmfulfor health it leads to memory issue, weight gain and depression, while itcauses many other harmful diseases.Questioner based studies are very common in scientific research (1-10).

The objective of present study was to correlate sleeping time with glucose concentration in blood.

MATERIAL AND METHODS

In this present project total 122 students were participated. All were students of BahauddinZakariya University Multan, Pakistan they werein between 19 to 24 years. Firstly we measured blood glucose level and saved its record, we used glucometer device for this purpose to take accurate and precise reading value. After performing this activity we raise question "when do you sleep at night and whether your blood glucose concentration effect bon sleeping time?"

Measurement of blood glucose level

Before measuring the glucose concentration in blood we took device for taking exact value, strips which was inserted through it's one end in to glucometer and on other end we put sample of blood. For taking one drop of blood we used sterilizedneedle and we called students, set the apparatus for first student, took the sample of blood and put its drop on strip that was already inserted into device. After the short interval of time glucometer showed the value of glucose present in the blood stream. In this way we find out blood glucose level of every student by this similar procedure and saved the readings on the neat and clean white blank paper along with individual identification.

Project Design

A questionnaire was already prepared about the sleeping time. We measured glucose level of all participants by glucometer and keenly studied their point of views about different sleeping times.

Statistical Analysis

Statistical analysis was done by using M-Stat student t Test calculation. This advanced software was made by SAS institute.

RESULTS ANDDISCUSSIONS

The implication of blood glucose level (Mean ± SD) with sleeping time 9 pm,10 pm, 11pm and 12 pm itsmean value and standard deviation is given respectively in table # 1. We calculated it's *p* value through student *t* Test. Total 122 students

of BahauddinZakariya University Multan Pakistan, participated in survey.

Table 1: Impact of blood glucose level (Mean±SD) with sleeping time

8-9 pm	91.80±6.52
9-10 pm	89.15±7.51
10-11 pm	87.73±24.33
11-12 pm	91.40±12.87

Table 2: Results of student *t*-Test with different sleep timing

8-9 to 9-10 pm	0.2
9-10 to 10-11 pm	0.82
10-11 to 11 -12 pm	0.5

Non-significant ($p>0.05$)

CONCLUSION

We concluded that time of sleeping has no impact on blood glucose level and vice versa.

REFERENCES

1. Qadir MI, Malik SA (2010) Comparison of alterations in red blood cell count and alterations in hemoglobin concentration in patients suffering from rectal carcinoma undergoing 5-fluorouracil and folic acid therapy. Pharmacologyonline, NI 3: 240-243.
2. Qadir MI, Noor A (2018) Anemias. Rare & Uncommon Diseases. Cambridge Scholars Publishing. Newcastle, England. ISBN: 978-1-5275-1807-0.
3. Qadir MI, Javid A (2018) Awareness about Crohn's Disease in biotechnology students. GloAdv Res J Med Medical Sci, 7(3): 062-064.
4. Qadir MI, Saleem A (2018) Awareness about ischemic heart disease in university biotechnology students. GloAdv Res J Med Medical Sci, 7(3): 059-061.
5. Qadir MI, Ishfaq S (2018) Awareness about hypertension in biology students. Int J Mod Pharma Res, 7(2): 08-10.
6. Qadir MI, Mehwish (2018) Awareness about psoriasis disease. Int J Mod Pharma Res, 7(2): 17-18.
7. Qadir MI, Shahzad R (2018) Awareness about obesity in postgraduate students of biotechnology. Int J Mod Pharma Res, 7(2): 14-16.
8. Qadir MI, Rizvi M (2018) Awareness about thalassemia in post graduate students. MOJ Lymphology&Phlebology, 2(1): 14-16.
9. Qadir MI, Ghalia BA (2018) Awareness survey about colorectal cancer in students of M. Phil Biotechnology at BahauddinZakariya University, Multan, Pakistan. Nov Appro in Can Study, 1(3): NACS.000514.2018.
10. Qadir MI, Saba G (2018) Awareness about intestinal cancer in university student. Nov Appro in Can Study, 1(3): NACS.000515.2018.