

IS EYESIGHT CORRELATED TO URINE IN BLOOD?

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ABSTRACT

The urine test is done to check human metabolism and its working. In diagnostic results, urine in the blood called hematuria is also given. It is an indication of the disease. Refraction is a bending of light rays after passing through objects. Myopia is a disease in which a person can see near objects clearly but face difficulty in seeing far objects. The objective of the study is to check the correlation of human eyesight with blood in urine. In this project, 100 participants volunteered to take part. With 0 to -1 visual acuity, 16% males and 38% females had normal results. It is concluded that human eyesight has no relation with urine in blood.

Keywords: Blood in urine, Hematuria, Myopia, Eyesight, Refraction error, Relationship

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INTRODUCTION

Urine is a liquid excreted from the human body because of purification of blood. Kidney absorbs extra nutrients and waste from the blood and passes it to urinary bladder through the uterus. From there, it is excreted out. Urine is mainly composed of water. Other than water, potassium, chloride ions, sodium, creatinine, urea, and other ions, as well as other inorganic and organic compounds, are also present in urine. The urine test is done to check human metabolism and its working. In diagnostic results, urine in the blood called hematuria is also given. It is an indication of the disease. Blood in the urine may be due to bacterial infection, bladder infection, kidney infection or kidney weakness. Kidney, where the blood is cleaned, can be the source of blood in urine or uterus, urethra, and bladder where urine is stored, is the source of blood in urine. As it is the symptom of the disease, it can only be cured by the eradication of that disease. In athletes, hematuria is common. The physical exercise and stress athlete bear results in a health problem. Men athlete observed to suffer more with hematuria. Urine strip test is used to measure blood, leukocytes, bilirubin, urobilinogen, ketones, proteins, pH and specific gravity of urine.

Refractive error is a common eye vision problem. Refraction is a bending of light rays after passing through objects. Refractive error can be in the form of farsightedness, near-sightedness, presbyopia, and astigmatism. Farsightedness and near-sightedness are more common in Pakistan. Near-

sightedness is also known as myopia. Myopia is a disease in which a person can see near objects clearly but face difficulty in seeing far objects. In this disease, when light rays enter the eyes after reflected by objects, it focus the image in front of the retina instead of on retina. Myopia can be transmitted from parents to offspring or can be acquired. It can be treated with eyeglasses, contact lens or refractive surgery. A healthy diet and less use of mobile or laptop can improve or control myopia.

The objective of the study is to check the correlation of human eyesight with blood in urine.

MATERIALS AND METHODS

Urinalysis

It is one of the common tests of urine tests. The urine sample of a person is collected and urine strips are used to quantify the molecules present in it. For this purpose, a sterilized cup is given to the participants and some instructions are given to collect the samples. After collecting the sample, urine strips are dipped in it. These standard strips contain ten reaction pads which after 30-60 seconds show a reaction. The strip is compared with the colored scale. The strips show a negative or positive result.

Project Designing

In this project, 100 participants volunteered to take part in the research. Participants were the students of the Institute of Molecular Biology and Biotechnology department in Bahauddin Zakariya University, Multan.

The participants were asked to submit their urine sample in provided sterilized cups. The urine strips were dipped in it and after 60 seconds were compared with colored scale. The reports were made according to the comparison.

Then the questionnaires were given related to research to respondents. In the questionnaire, the question was asked about the degree of their myopia.

RESULTS

The table 1 is showing the relation between human eyesight and blood in urine. According to table 1, with 0 to -1 visual acuity, 16% male and 38% female had normal results. While 2% of males had positive results (1% of the male had a hemolytic result and 1% had non-

hemolytic) and 4% of female showed positive results (3% hemolytic and 1% non-hemolytic). The 3% of male participants with -1 to -2 refractive error had normal results while 1% of males are showing hemolytic blood in urine. The 15% of a female with myopic error -1 to -2 had normal results while 3% of them had hemolytic blood in urine. For -2 to -3, in 4% male participants and 9% female participants had normal results while 3% of the female were had hemolytic blood in urine. 1% male and 1% female had normal results with a myopic refractive error between -3 to -4.

Visual Acuity	-3 to -4		-2 to -3		-1 to -2	
	Negative	Positive	Negative	Positive	Non-haemolytic	Haemolytic
Male	1%	-	4%	3%	-	-
Female	1%	-	9%	-	-	-

		Negative	Haemolytic	1%	3%
				3%	15%
	0 to -1	Positive	Non-haemolytic	1%	1%
			Haemolytic	1%	3%
		Negative		16%	38%
Visual acuity			Male	Female	

DISCUSSION

This study has given advancement in recent researches. The persons with normal eyesight had a higher percentage of normal blood in urine

In one of the researches in which researches checked the cotinine level in urea in myopic patients revealed that lower cotinine level in urine is related with increasing myopic refractive error.

Conclusion

It is concluded that human eyesight has no relation with urine in blood.

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