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Assessing the Influence of Aggressiveness on Urobilinogen Level in Urine

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ABSTRACT

The aim of this study was to investigate the effect of aggressiveness on urobilinogen level in urine.We took 100 students of Bahauddin Zakariya University Multan, Pakistan for the completion of our research project. We examined urobilinogen in their urine through urine analysis. Urobilinogen is a pigment that is colorless and is produced due to the breaking of bilirubin by bacteria present in the gut. Maximum quantity of it is excreted through feces while a small amount is removed through urine. Normal amount of urobilinogen in urine is 0.2-1 Eu per deciliter. Its amount greater than 4 mg per deciliter is not normal. Taking more carbohydrates and drugs that can change the coloration of urine to red indicate false high level of urobilinogen. Urobilinogen level can be reduced by limiting alcohol intake as it causes liver damage. Aggression is a type of hostile behavior of a person that aims at harming another individual. A gene present on the X chromosome affects aggressiveness in an individual. Noisy surroundings also contribute in developing aggressive behavior in an individual. It was concluded from the current project that usually aggressive males had urobilinogen in their urine. So, there is connection between male aggression and urobilinogen level in urine.

***Keywords*:**Aggression, Hostile behavior, Urobilinogen, Urine analysis

INTRODUCTION

Urobilinogen is a pigment that is colorless and is produced due to the breaking of bilirubin by bacteria present in the gut. Maximum quantity of it is excreted through feces while a small amount is removed through urine. When red blood cells degradation increase due to the liver disorder, bilirubin amount also enhances that eventually cause an increase in the urobilinogen level in the urine. On the other side, if less bilirubin is produced due to less bile flow, urobilinogen amount is also decreased. Urobilinogen is analyzed through urine test to detect problems in gall bladder and liver. Person is prescribed urine test to analyze liver functioning if he has symptoms like yellow coloration of eyes and skin, dark coloration of urine, vomiting, swelling and pain in the abdominal area. Normal amount of urobilinogen in urine is 0.2-1 Eu per deciliter. Its amount greater than 4 mg per deciliter is not normal.Low level of urobilinogen is due to less bile transfer from liver into the intestine that can cause an increase in its level in the blood rather than removing it. Thus urobilinogen is also reduced due to less bilirubin. Some medications cause destruction of bacteria of gut and thus bilirubin is not broken. So, urobilinogen quantity is also reduced. Exposing sample of urine to sunlight degrades urobilinogen. This indicates false low level of urobilinogen. High level of urobilinogen is due to liver disorder like hepatitis. Excessive break down of red blood cells increase bilirubin level that ultimately raise urobilinogen level. Taking more carbohydrates and drugs that can change the coloration of urine to red indicate false high level of urobilinogen. Urobilinogen level can be reduced by limiting alcohol intake as it causes liver damage. Not use drugs like aspirin that can damage liver. Taking cabbage and asparagus helps in the detoxification of kidneys and liver, thus improving their functionality to reduce the level of urobilinogen in urine.

Aggression is a type of hostile behavior of a person that aims at harming another individual. When one person harms another person physically (i.e. uses instruments like stick, gun and sometimes hands), this type of aggressive behavior is referred as Non-verbal aggression. On the other side, the form of aggressive behavior that aims at hurting the emotions and feelings of a person is called Verbal aggression. Various factors contribute to aggression in an individual. These factors consist of both environmental and genetic ones. A gene present on the X chromosome affects aggressiveness in an individual. Noisy surroundings also contribute in developing aggressive behavior in an individual. If aggression causes more harm (like in case of Non-verbal aggression), it needs to be treated. Physician prescribes drugs like depakote and carbamazepine for the treatment of aggression.

MATERIALS AND METHODS

We examined urobilinogen in urine through urine analysis. For that purpose, urine sample was taken in a small container. We dipped a urine test strip (having color scale) in the urine sample. The strip was taken out

of the sample after dipping for few seconds. Comparison was made between the color scale on the urine strip and standardized color scale. Analysis showed urobilinogen in the urine of some students while others were negative for urobilinogen. We also asked the students to tell about their behavior i.e. aggressive or not. Data was piled up and coordination of aggression with urine urobilinogen level was analyzed.

Project Designing

For the completion of our research project, we took 100 students of Bahauddin Zakariya University Multan, Pakistan. Our study was to assess the effect of aggressiveness on urobilinogen level in urine. For the completion of our research study, we asked the students to tell about their behavior i.e. aggressive or not. Urobilinogen level in urine was also evaluated. Data was piled up and coordination between aggression and urobilinogen level in urine was analyzed.

RESULTS

Table 1: Association of Aggressive and non-aggressive with Urine Urobilinogen Level

Aggressive Individuals				**Non-aggressive Individuals**			
	Negative(no urobilinogen)	**0.1**	**1**		**Negative(urobilinogen absent)**	**0.1**	**1**
Female	8%	12%	14%	**Female**	5%	14%	12%
Male	6%	0%	13%	**Male**	4%	5%	7%

Table 1 explains that the %age of aggressive females with no urobilinogen in the urine is less than that of aggressive females having urobilinogen in urine.

Table 2: Influence of aggressiveness on urine urobilinogen level

Aggression present			**Aggression absent**	
Gender	**Urobilinogen absent**	**Urobilinogen present**	**Urobilinogen absent**	**Urobilinogen present**
Male individuals	17.14%	37.14%	11.42%	34.28%
Female individuals	12.30%	40%	7.69%	40%

DISCUSSION

Some research had been done on aggressiveness in individuals before our research studies. Leonard Chioma Onwukwe, Vivian Chizoma Njemanze and some other researchers worked on aggression. They studied that how violent video games affect aggressiveness in children. Their study showed that these games have a prominent effect on aggressiveness in children.

CONCLUSION

It was concluded from the current project that usually aggressive males had urobilinogen in their urine. So, there is connection between male aggression and urobilinogen level in urine.

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