

RESEARCH ARTICLE

Is there any correlation between perfume allergy and urobilinogen?

Mah Rukh*, Aqsa Naeem, Abida Bibi, Syed Bilal Hussain, Muhammad Imran Qadir

*Institute of Molecular Biology and Biotechnology, Bahauddin Zakariya University, Multan, Pakistan***Received on: 30 July 2022; Revised on: 30 August 2022; Accepted on: 05 October 2022****ABSTRACT**

The correlation between perfume allergy and urobilinogen is discussed in this research. Urobilinogen is the colorless fluid produced by the reduction of bilirubin. This process normally occurs in the small intestine. The normal range of urobilinogen in urinary tract is below 17 $\mu\text{mol/L}$; hence, its increased or decreased levels show that there is some kind of disease in urinary tract. Some of the main causes of abnormal level of urobilinogen in urine are hemolysis, liver disease, rotor syndrome, congestive heart failure, and bile duct obstruction. Perfumes contain certain chemicals and when the particles of these chemicals enter into the body by inhalation then T-lymphocytes of our immune system are disturbed leading to different allergic response in our body. About 60% of males have urobilinogen in their urine and are also allergic to perfumes while 55% of females have urobilinogen and are allergic to perfumes as well.

Keywords: Urobilinogen, Fragrance allergy, Liver disease and bile duct obstruction**INTRODUCTION**

Some people love perfumes and fragrances as it makes them feel great. They tend to use scents despite the mild allergy that these scents can cause. Urobilinogen is the colorless fluid produced by the reduction of bilirubin. This process normally occurs in the small intestine. The normal range of urobilinogen in urinary tract is below 17 $\mu\text{mol/L}$; hence, its increased or decreased levels show that there is some kind of disease in urinary tract.^[1-4] Causes of urine urobilinogen are hemolysis, liver disease, rotor syndrome, congestive heart failure, and bile duct obstruction. Test strips are used to check the value of urobilinogen in urine, if the strip color becomes pink, it indicates that the value is normal or less but color other than pink indicates that its value is increased from normal value. Due to blood disorder, this disease can develop. Different supplements such as iron and folic acid maintain this level. Liver transplantation is the last cure in severe anemia.

Some household products such as soap, furniture polish, and paint also produce smell which may be pleasant to many people but may also cause irritation in some people. It can cause cough and create very serious problems for the people allergic to these smells. It is a common type of allergy found in all around the Earth. The basic mechanism of this disease is that when the particles of chemicals enter into the body by inhaling in infected air then normal function of T-lymphocytes of our immune system gets disturbed and as a result different allergic response are shown in our body.^[5-7]

MATERIALS AND METHODS

One hundred students took part in this research. All students belong to Bahauddin Zakariya University, Multan, Pakistan.

Urobilinogen in urine

Color strips are used to test urobilinogen in urine. Actually, it is an aldehyde reaction. Strip becomes pink when test is positive. For this test, optimum

***Corresponding Author:**

Mah Rukh

E-mail: mahrukhmahboob21@gmail.com

Table 1: Relates perfume allergy with urine urobilinogen

Gender	Perfume allergy		Don't have perfume allergy	
	Urobilinogen	No urobilinogen	Urobilinogen	No urobilinogen
Male	60%	20%	20%	0%
Female	55%	12.5%	25%	7.5%

temperature is 23–27°C. Fresh sample of urine is always required.

Project

Project relates perfume allergy with urine urobilinogen.

RESULTS AND DISCUSSION

Total 60% of males have urine urobilinogen and also show perfume allergy. About 20% of males have no urobilinogen but show perfume allergy. About 20% of males have urobilinogen but they do not show perfume allergy. About 0% of males have no urobilinogen and also do not show perfume allergy. About 55% of females have urobilinogen and also show perfume allergy. About 12.25% of females have no urobilinogen but show perfume allergy. About 25% of females have urobilinogen but they do not show perfume allergy. About 7.5% of females have no urobilinogen and also do not show perfume allergy. Perfumes contain certain chemicals that can act as allergens. These allergens highly provoke the immune response as a result of which severe reaction can occur. This allergic reaction can also be fatal in some cases. On the other hand, urobilinogen is produced by reduction of bilirubin. Certain bacteria present in our intestine are responsible for this reduction. Urobilinogen is normally produced by our body and is also excreted in feces or urine. However, in some cases, due to certain reactions taking place in our body, this level can change drastically, leading to disease. The present study shows how perfume allergy can also affect the levels of urobilinogen present in urine sample.^[8-10]

Questionnaire-based studies are very important as they involve the general public. It allows the participation of people from different areas and ethnicity thus, providing more reliable results. It is

fast and reliable way for data collection, and to be used in further research [Table 1].

CONCLUSION

About 60% of males have urobilinogen and 55% of females have urobilinogen. These are also a part of people who have perfume allergy.

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