



Global Advanced Research Journal of Medicine and Medical Sciences (ISSN: 2315-5159) Vol. 7(3) pp. 065-067, March, 2018  
Available online <http://garj.org/garjmms>  
Copyright © 2018 Global Advanced Research Journals

## Short Communication

# Awareness about Retinitis pigmentosa in biotechnology students

Muhammad Imran Qadir\* and Zunaira Akhtar

Molecular biology and Biotechnology, Bahauddin Zakariya University, Multan Pakistan

Accepted 26 March, 2018

Retinitis pigmentosa is the genetic disease in which retinal cells that contain photoreceptors cell are degenerated and result in loss of vision at night and peripheral vision (SIDE VISION). In this disease many genes are involved, more than 50 genes. In order to analyze the awareness about this disease, we selected 37 biotechnology students and 15 questions were put. Among them 31 were female and 6 were male, all student agreed that retinitis pigmentosa is genetic disease and no one was affected by this disease including their family. It is not easily curable as describe by students because no effective treatments are available for its cure.

**Keywords:** Retinitis Pigmentosa, awareness, Questionnaire survey, biotechnology students

## INTRODUCTION

It is genetic disease which causes loss of vision. It involve the degeneration of retinal cells which contains the photoreceptors, these are the light sensitive tissues that lines the back of the eye. It involves the loss of rod receptor cells. One or more than 50 genes are involve in retinitis pigmentosa. Symptoms include the loss of peripheral vision (Side vision) and difficulty in seeing at night. Inheritance pattern identified as autosomal recessive, autosomal dominant X linked (Fahim et al., 2017). Some major genes are identified in which Rhodopsin gene which encode for protein that is the principle protein for photoreceptors and mutation in this gene is main genetic factor of this disease (Daiger et al., 2015). Diagnosis include the genetic testing, visual field testing and optical tomography is the further diagnostic

tool. There is no such treatment available for this disease but the degeneration of photoreceptors can be delays by the daily intake of vitamin A supplements. Gene therapy may help in remaining health of retinal cell in future.

The basic purpose of this study is to aware the students related to Retinitis pigmentosa.

## METHODOLOGY

### Questionnaire survey development

A Question was developed to access the awareness of retinitis pigmentosa in the students of biotechnology. The Questionnaire consists of 15 questions of simply YES and NO boxes. The Questionnaire was given to the individual students to mark the option of their choice. 37 postgraduate students were selected to study about retinitis pigmentosa awareness.

---

\*Corresponding Author E-mail: [mrimranqadir@hotmail.com](mailto:mrimranqadir@hotmail.com)

**Table 1.** Questionnaire to evaluate awareness about etiology of retinitis pigmentosa disease.

<b>Retinitis pigmentosa is a</b>	<b>YES</b>	<b>NO</b>
1 Retinitis pigmentosa is caused by viruses		
2 Retinitis pigmentosa is caused by bacteria		
3 Retinitis pigmentosa is caused by fungi		
4 Retinitis pigmentosa is caused by genetic factors		
5 Retinitis pigmentosa		

**Table 2.**

<b>Ever suffered from retinitis pigmentosa</b>	<b>YES</b>	<b>NO</b>
6 You		
7 your family		
8 your relative		
9 your neighbor		
10 your friend		

**Table 3.**

<b>Retinitis pigmentosa is transmitted by</b>	<b>Yes</b>	<b>NO</b>
11 Blood		
12 parents to offspring		

**Table 4.**

<b>Retinitis pigmentosa may be treated by</b>	<b>YES</b>	<b>NO</b>
13 Medicines		
14 surgery		
15 Do not worry, it is easily curable		

## RESULTS AND DISCUSSION

Awareness about etiology of retinitis pigmentosa is given in table 5

As we were selected 37 postgraduate biotechnology students, 6 were male and 31 females. 15 questions were put to analyze the awareness of retinitis pigmentosa disease among them. Results describe the following conclusion. First 3 questions in which students were totally disagreed and results were 100% as described in table 1 but in 4<sup>th</sup> question students were 100% agreed

that retinitis pigmentosa is the genetic disease. In 5<sup>th</sup> question the views were vary, about 78% were disagreed but the fact is that, retinitis pigmentosa is not metabolic disease. Among 37 students this disease was not present in them, in their family and friends. But present in their relative and neighbor as described in table. All student disagreed that this disease does not transfer by blood but 100 agreed that its transfer from parents to offspring. There is no treatment available for retinitis pigmentosa but students are not aware about that. All were agreed that it is not easily curable.

**Table 5.** Awareness about etiology of retinitis pigmentosa views of postgraduate biotechnology

Questionnaire	Female		Male		Total	
	YES	NO	YES	NO	YES	NO
1 viral disease	0%	100%	0%	100%	0%	100%
2 bacterial disease	0%	100%	0%	100%	0%	100%
3 fungal disease	0%	100%	0%	100%	0%	100%
4 genetic disease	100%	0%	100%	0%	100%	0%
5 metabolic disease	19.3%	80.6%	33.3%	66.6%	21.6%	78.3%

**Table 6.**

Ever suffered from retinitis pigmentosa	Female		Male		Total	
	YES	NO	YES	NO	YES	NO
6 you	0%	100%	0%	100%	0%	100%
7 your family	0%	100%	0%	100%	0%	100%
8 your relative	3.22%	96.7%	0%	100%	2.7%	97.2%
9 your neighbor	19.3%	80.6%	0%	100%	16.2%	83.7%
10 your friend	0%	100%	0%	100%	0%	100%

  

Retinitis pigmentosa transmitted by	Female		male		Total	
	YES	NO	YES	NO	YES	NO
11 Blood	0%	100%	0%	100%	0%	100%
12 your family	100%	0%	100%	0%	100%	0%

  

Retinitis pigmentosa may be treated by	Female		Male		Total	
	YES	NO	YES	NO	YES	NO
13 medicine	58%	41.9%	66.6%	33.3%	59%	40%
14 surgery	67.7%	32%	50%	50%	64.8%	35%
15 Easily curable	0%	100%	0%	100%	0%	100%

## REFERENCES

Daiger SP, et al (2015). "Genes and mutations causing autosomal dominant retinitis pigmentosa." Cold Spring Harbor perspectives in medicine 5(10): a017129.

Fahim AT, et al (2017). "Nonsyndromic retinitis pigmentosa overview."