

RESEARCH ARTICLE

Public Information of scarlet fever in human health and their treatment

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ABSTRACT

Scarlet fever is a bacterial disease. It is mostly present in children. It is caused by bacteria which belong to a Streptococcus family. Mostly it affects the skin of the children. The major symptoms are sore throat, headaches and swollen lymph nodes.

Key Words: Scarlet fever is bacterial disease.

INTRODUCTION

Scarlet fever is also called scarlatina. It is a bacterial poison. Scarlet fever is produced by a toxin released by the bacteria Streptococcus pyogenes. It is mostly present in kids and cause strep throat or strep skin poison. The strep bacteria are toxic and cause reckless expands over most of the body. The sign contain a sore throat, headaches and swollen lymph nodes. It mostly acts upon the children between five to 15 years of age. These bacteria produce many type of infection. It is easily transmitted from one person to another. Scarlet fever also causes skin infection. If scarlet fever is not treated in earlier stage than it is changed into Rheumatic fever and affect the heart joints skin and brain. It also affects the kidney if long term health problems occur from scarlet fever. There is no vaccine for the treatment of scarlet fever. Some precautions are used to avoid scarlet fever. Wash your hands after coughing and sneezing and before preparing food.

MATERIAL AND METHODS

This task contains 78 participants of BZU Multan. Their ages are from 18-22 years old. Following question were asked from them

Table 1: Questions to judge awareness about aetiology of Scarlet fever

Questions
Scarlet fever is an infection of virus
Scarlet fever is a bacterial disease
Scarlet fever is an infection of Fungi
Scarlet fever is a Genetic disease
Scarlet fever is a metabolic disease
Have you ever suffered from Scarlet fever
Have your family member ever suffered from Scarlet fever
Have your relative ever suffered from Scarlet fever
Have your neighbour ever suffered from Scarlet fever
Have your friend ever suffered from
Scarlet fever is transmitted by contiguity or through blood transaction

Scarlet fever is transmitted from parents to next era
Scarlet fever may be treated by medicines
Scarlet fever may be treated by surgery
No need of treatment

PROJECT

Questionnaire was provided about Scarlet fever

STATISTICAL ANATOMY

Statistical anatomy was performed by using Microsoft Excel

RESULTS AND DISCUSSIONS

The consequences of this project are that scarlet fever is a bacterial disorder. The detail about this projects and questions are given in the form of tables. Total 78 students were participated in this research the result was that no one was agreed that it is a viral disease. 14 males and 54 males were agreed that it is a bacterial disease. Only 6 females were agreed that it is a fungal disease while no one was agreed that it is a genetic disease .Males were not agreed that it is present in their family while some prefer surgeries. Me females were agreed that it is disease found in their family. Mostly subjects agreed that it is cured through medicines but s

Table 1: Questionnaire to valuate awareness about etiology of Scarlet fever

Scarlet fever is a	Yes	No
Viral illness	08	70
Bacterial illness	71	07
Fungal illness	05	73
Genetic illness	12	66
Metabolic illness	13	65

Table 2: Questionnaire to valuate views about prevalence of scarlet fever

Ever suffered from Scarlet fever your	Yes	No
You	09	69
Family member	12	66
Relative	12	67
Neighbor	12	58
Friend	13	57

Table 3: Questionnaire to evaluate views about transmission of Scarlet Fever

Scarlet fever is imparted by	Yes	No
Contacts or blood exchange	07	59
From parents to next generation	12	58

Table 4: Questionnaire to valuate views about Hope for Scarlet fever

Scarlet fever may be treated by	Yes	No
By medicines	57	14
By surgery	12	59
Never treated by surgery or medicine	07	62

Table 5: Sensibility about etiology of Scarlet Fever:

QUERY	Boys		Girls		Total	
	Agreed	Disagreed	Agreed	Disagreed	Agreed	Disagreed
Viral illness	26%	73%	6%	93%	08	70
Bacterial illness	100%	0%	90%	9%	72	0
Fungal illness	6%	92%	6%	93%	05	73
Genetic illness	6%	92%	14%	85%	12	66
Metabolic illness	13%	86%	17%	82%	13	65

Wong and et all reported that Explosive outbreaks of infectious diseases occasionally occur without immediately obvious epidemiological or microbiological explanations. Plague, cholera and *Streptococcus pyogenes* infection are some of the epidemic-prone bacterial infections. Besides epidemiological and conventional microbiological methods, the next-generation gene sequencing technology permits prompt detection of genomic and transcriptomic profiles associated with invasive phenotypes. Horizontal gene transfer due to mobile genetic elements carrying virulence factors and antimicrobial resistance, or mutations associated with the two component CovRS operon are important bacterial factors conferring survival advantage or invasiveness. The high incidence of scarlet fever in children less than 10 years old suggests that the lack of protective immunity is an important host factor. Surveillance of severe *S. pyogenes* infection is important because it can complicate concurrent chickenpox and influenza. Concomitant outbreaks of these two latter infections with a highly virulent and drug-resistant *S. pyogenes* strain can be disastrous.^[11] Gidaris reported that Complications of scarlet fever include rheumatic fever, post streptococcal glomerulonephritis and suppurative sequelae (adenitis, sinusitis, cellulitis and abscess

formation). Hepatitis is a rare complication of scarlet fever in the paediatric population. In the adult literature it is considered somewhat more frequent, although the exact prevalence is undetermined. The pathophysiologic mechanism is unclear. Direct bacterial injury, toxicity and immunologic mediation have been proposed. Liver biopsies in patients with scarlet fever have shown granulocytic infiltration of the portal areas and hepatocytic degeneration. In most patients the prognosis is excellent and this was confirmed in our case ^[12].

CONCLUSION

From the above analysis it is concluded that Scarlet fever is a bacterial disease. Its treatment is available so no severity comes.

REFERENCES

1. Stevens DL, Tanner MH, Winship J, Swarts R, Ries KM, Schlievert PM, Kaplan E. Severe group A streptococcal infections associated with a toxic shock-like syndrome and scarlet fever toxin A. New England journal of medicine. 1989 Jul 6;321(1):1-7.
2. Dick GF, DICK GH. A skin test for susceptibility to scarlet fever. Journal of the American Medical Association. 1924 Jan 26;82(4):265-6.
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.
 11. Wong SS, Yuen KY. Streptococcus pyogenes and re-emergence of scarlet fever as a public health problem. *Emerging microbes & infections*. 2012 Jul;1(7):e2.
 12. Gidaris D, Zafeiriou D, Mavridis P, Gombakis N. Scarlet Fever and hepatitis: a case report. *Hippokratia*. 2008 Jul;12(3):186-7.