

RESEARCH ARTICLE

Awareness about causes, treatment & symptoms of Systemic Anthrax in HumansMuhammad Imran Qadir¹, Aqsa Naeem*^{1*}*Institute of Molecular Biology and Biotechnology, Bahauddin Zakariya University, Multan, Pakistan***Received on: 01/08/2018, Revised on: 15/09/2018, Accepted on: 25/10/2018****ABSTRACT**

Objective of the present study was about anthrax. The total members of participants in this project are 79. Anthrax is a bacterial disease and it is spread from one human to other by direct contact with contaminated environment or by blood transfusion. It directly damaged the brain and spinal cord. Their symptoms can be easily seen before 48 hours. At early stage treatment is available and in some condition anthrax cause death.

Key Words- anthrax, bacterial disease, spores and fever.

Family of bacteria

Anthrax associates to gram positive bacteria. Anthrax is heterotrophic, it is rod shaped and it secretes endospore, The scientific name of anthrax is **Bacillaceae**. It is commonly known as **Bacillus Anthracis**. The rank of anthrax in classification table is family.

INTRODUCTION

Bacillaceae disease occurs due to gram positive bacteria. It is mostly present in soil and in domestic waste around the world. Direct contact with gram positive bacteria cause serious infection in humans. These spores are hard shelled. This disease cannot transmit by the direct contact with infected person. These bacteria can be easily inhaled through air or contact with contaminated environment. The infection starts when spores enter into the body. Spores get activated then bacteria multiply and distribute throughout the body. It produced toxins which cause illness. The Anthrax shows symptoms like fever, diarrhea and abdominal pain. It shows serious effects on human body like shock, slower the breath. It also cause disease in brain and cause bleeding through spinal cord which causes to death. This disease can easily diagnostic from blood sample. If gram positive bacteria present in blood then that person is suffered through anthrax. This disease shows sign of infection in 48 hours after inhaling spores. Antibiotics are available for this disease and it is also prevented by the immune system of our body. Objective of the present study was about anthrax.^[1,2]

MATERIALS & METHODS

This study contains 79 subjects of Bahauddin Zakariya University Multan. Their ages are from

18 to 22 years old. Following questions were asked by 79 students.

Questionnaire to evaluate awareness about etiology of Anthrax

Anthrax is a	
1.	Viral disease
2.	Bacterial disease
3.	Fungal disease
4.	Genetic disease
5.	Metabolic disease
Ever suffered from Anthrax	
6.	You
7.	Your family member
8.	Your relative
9.	Your neighbor
10.	Your friend
Anthrax is transmitted by	
11.	Contacts or blood transfusion
12.	From parents to offspring
Anthrax may be treated by	
13.	Medicines
14.	Surgery
15.	No need of treatment

Project

Questionnaire was prepared about Anthrax

Statistical analysis

Statistical analysis was performed by using micro-soft Excel.

RESULT AND DISSCUSSION

Percentage of causes of anthrax in humans is given in table 5. Total 79 subjects were present in this research in which 16 boys and 63 girls are involved. The result is that only 1 girl claim that

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anthrax was a Viral disease while 16 boys and 62 girls were not agree with her and 11 boys and 58 girls claim that anthrax was a Bacterial disease while 5 boys and 5 girls deny this equation. 4 boys and 1 girls claim that anthrax is a fungal disease while 12 boys and 62 girls were not agree with them. 4 boys and 1 girls claim that anthrax was a genetically disease while 12 boys and 62 girls wear not agree with them 6 boys and 22 girls claim that anthrax was a Metabolic disease while 10 boys and 41 girls were not agree with them. 4 boys and 6 girls claim that they have anthrax while 12 boys and 57 girls don't have this disease. 4 boys and 5 girls claim that they have anthrax disease in their family while 12 boys and 58 girls were not has these kind of symptoms in their family. 4 boys and 3 girls claim that in their relatives anthrax is present while 12 boys and 60 girls shows no response about anthrax in their relatives. 5 boys and 3 girls claim that they have anthrax sign in their neighbors while 11 boys and 60 girls were not seen any signs of anthrax in their neighbors. 4 boys and 5 girls claim that their friends were suffered from anthrax while 12 boys and 58 girls have no any friends which were suffered from anthrax. 5 boys and 34 girls claim that anthrax disease was spread by direct contact or by blood transfusion while 11 boys and 29 girls were not thinks like that. 2 boys and 12 girls think that anthrax transfer from parents to offspring while 14 boys and 51 girls were denying this condition. 13 boys and 47 girls think that treatment of anthrax is present while 3 boys 16 girls were not agree with them. 4 boys and 12 girls think that anthrax can be cured with surgery while 12 boys and 51 girls deny this equation. 4 boys and 18 girls claim that anthrax can be cured by own while 12 boys and 45 girls were not agree with them.

Table 1: Questionnaire to evaluate awareness about etiology of anthrax

Source of disease	Males	Yes	No	Females	Yes	No
Anthrax is a Viral disease	16	0	16	63	01	62
Anthrax is a Bacterial disease	16	11	5	63	58	05
Anthrax is a Fungal disease	16	04	12	63	01	62
Anthrax is a Genetic disease	16	04	12	63	01	62
Anthrax is a Metabolic disease	16	06	10	63	22	41

Table 2: Questionnaire to evaluate views about prevalence of anthrax

Suffered from disease	Males	Yes	No	Females	Yes	No
You suffered from this disease	16	04	12	63	06	57
Your family members	16	04	12	63	05	58

suffered from this disease						
Your relatives suffered from this disease	16	04	12	63	03	60
Your neighbors suffered from this disease	16	05	11	63	03	60
Your friends suffered from this disease	16	04	12	63	05	58

Table 3: Questionnaire to evaluate views about transmission of anthrax

Mean of transfer	Males	Yes	No	Females	Yes	No
By Contacts or blood transfusion	16	05	11	63	34	29
From parents to offspring	16	02	14	63	12	51

Table 4: Questionnaire to evaluate views about Hope for anthrax

Treatment of this disease	Males	Yes	No	Females	Yes	No
Medicines is available	16	13	03	63	47	16
Surgery is possible	16	04	12	63	12	51
No need of treatment	16	04	12	63	18	45

Table 5: percentage of anthrax in humans

Questions	Male		Female		Total	
	Yes	No	Yes	No	Yes	No
Anthrax is a Viral disease	0%	100%	1.6%	98.4%	1.26 %	98.73%
Anthrax is a Bacterial disease	68.75%	31.25%	92.06%	7.9%	87.34 %	12.65%
Anthrax is a Fungal disease	25%	75%	1.5%	98.41%	6.32 %	93.67%
Anthrax is a genetical disease	25%	75%	1.5%	98.41%	6.32 %	93.67%
Anthrax is a Metabolic disease	37.5%	62.5%	34.92%	65.07%	35.44 %	64.55%
You are suffered from anthrax	25%	75%	9.5%	90.47%	12.65 %	87.34%
Your family member suffered from anthrax	25%	75%	7.93%	92.06%	11.39 %	88.60%
Your relatives suffered from anthrax	25%	75%	4.76%	95.23%	8.86 %	91.139
Your neighbors suffered from anthrax	31.25%	68.75%	4.76%	95.23%	10.12 6%	89.87%
Your friends suffered from anthrax	25%	75%	7.93%	92.06%	11.39 %	88.60%
Anthrax spread by direct contact or by blood transfusion	31.25%	68.75%	53.96%	46.04%	49.36 %	50.63%
Anthrax transfer from parents to offspring	12.5%	87.5%	19.04%	80.95%	17.72 %	82.27%
Treatment of anthrax is present	81.25%	18.75,%	74.63%	25.39%	63.45 5%	36.544 %
Anthrax can be cured by surgery	25%	75%	19.04%	80.95%	20.25 %	79.74%
Anthrax is cured by own	25%	75%	28.97%	71.42%	27.84 %	72.15%

Questionnaire has been important outcome in current researches.

More than 95% people in US suffered from anthrax skin infection. 24% people die when they don't get proper treatment. 25% to 75% of death risk present in the form of intestinal infection. While 50% to 80% people die which is suffered from respiratory anthrax. This death rate is common in people who get proper treatment. Before 20th century anthrax killed 100 to 1000 people per year. ^[3-10]

CONCLUSION

Anthrax is a Bacterial disease this disease spread by direct contact with bacteria it directly effects the brain and spinal cord. Their symptoms occur in 48 hours. Treatment is available for anthrax and it is also cured by the immune system of body at very early stage. ^[11, 12]

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