

RESEARCH ARTICLE

Views of postgraduate biology students about osteomyelitis disease: Its causes' how it is spread and control medically

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ABSTRACT

Osteomyelitis is a bone infection which is caused by bacteria virus and sometimes also caused by fungi. An inquiry was set about the osteomyelitis. We took a paper sheet and asked the question from the whole class student of M.Sc Biotechnology than diverse views of students were taken about the osteomyelitis that either it is caused by bacteria or some other means such as viruses and fungus, It is a genetic or metabolic disease. Are they, their family member, their relatives, and their close friends were suffered from it. We interpreted the results, as that we were 100 students in the postgraduate class in which 20 males and 80 were female participated. It is concluded from the above discussion that osteomyelitis is disease in majority of cases are caused by bacteria.

Keywords: Osteomyelitis disease, Its spread, Treatment

INTRODUCTION

Osteomyelitis is a bone infection which is caused by bacteria virus and sometimes also caused by fungi.^[1] Bone shows high resistant to infection, the development of osteomyelitis often requires pain, the presence of a foreign body, *Staphylococcus aureus*, for example, messengers several receptors for bone mechanisms.^[2] (e.g., fibronectin, laminin, and collagen) that allow observance to bone and the establishment of infection, the duration of osteomyelitis illness may be acute or chronic, the mechanism of infection hematogenous spread, addition from an attached focus, straight contamination, affected bone, physiologic status of the host, and the medical treatment as differ depending on the type of osteomyelitis.^[3] Hematogenous range is responsible for <25% of cases of the osteomyelitis in adults and happens in patients at possibility for blood infections (comprising those on hemodialysis with long-lasting intravascular catheters) in those patients with high-grade bacteremia, sickle cell disease in adult.^[4,5] The intervertebral disc space

or the adjacent vertebrae are mostly the sites of infection for hematogenous osteomyelitis. Typically in very minor cases, microbes are isolated in patients with hematogenous osteomyelitis; about 50% an average of cases are caused by bacteria. Osteomyelitis from contiguous spread much more common in young people, mainly in people age >50 years those have diabetes mellitus or peripheral vascular disease. Patients with osteomyelitis from contiguous spread generally have a more microbial infection. Non-stop contamination of bone exposed by an open breakage or by operation may lead to osteomyelitis, reliant on the grade of contamination and associated soft tissue injuries mostly osteomyelitis as caused bacteria called *Staphylococcus aureus*, as the type of staph bacteria. Short-term osteomyelitis improves quickly within 10 days.^[6-8] Indications of acute and long-lasting osteomyelitis are actually same which are temperature, irritability vomiting, inflammation, and warmth in the part of infection pain usually at night if somebody has osteomyelitis is the main step in treatment. It is also unusually challenging. Surgeons refer the patient for X-rays, blood tests, magnetic resonance imaging, and bone images to get a picture of what are the causing agent. Bone biopsy is needed to check the analysis of osteomyelitis. This

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also helps in determination of microorganism, classically bacteria, producing the infection so the right medicine can be arranged.

MATERIALS AND METHODS

An inquiry was set about the osteomyelitis. We took a paper sheet and asked the question from the whole class student of MSc biotechnology than diverse views of students were taken about the osteomyelitis that either it is caused by bacteria or some other means such as viruses and fungus, it is a genetic or metabolic disease. Are they, their family member, their relatives, and their close friends were suffered from it. How it is transmission occurred from one body to another.^[9,10] Their views were taken on a page as YES or NO. All the data collected are given in Tables 1-4.

RESULTS AND DISCUSSION

Afterward the detailed study of records, we interpreted the results, as that we were 100 students in the postgraduate class in which 20 males and 80 were female participated. Majority of the student said that osteomyelitis is a bacterial disease and they also said that the diseases are very rarely caused by virus and fungi. All the view of the students about osteomyelitis are given in the table in percentage, Table 5.

CONCLUSION

It is concluded from the above discussion that osteomyelitis is disease in majority of cases are caused by bacteria. It is also caused by viruses and fungi in minor cases. It is also detected that people suffered from the disease were in their relations. It is not genetic diseases. Transmission as occurs through blood transfusion its medication is also available for its cure caused by the bacteria. Lehman *et al.* concluded that vertebral osteomyelitis due to *Eikenella corrodens* is extremely rare. Direct inoculation as a cause of vertebral osteomyelitis with *Eikenella* has never been reported. If diagnosed properly with appropriate cultures and antibiotic sensitivities, *Eikenella* osteomyelitis can be treated successfully according to standard orthopedic practices including debridement, fusion, and appropriate antibiotics. Awareness of unusual bacteria as potential causative organisms

Table 1: Survey to evaluate mindfulness about etiology of osteomyelitis

Osteomyelitis is a	Yes (%)	No (%)
As viral disease?	15	85
As bacterial disease?	80	20
As fungal disease?	20	80
Genetic disease?	20	80
Metabolic disease?	25	75

Table 2: Questionnaire to evaluate views about the prevalence of osteomyelitis

Ever suffered from osteomyelitis	Yes (%)	No (%)
You?	15	85
Your family member?	10	90
Your relative?	8	92
Your neighbor?	6	94
Your friend?	5	95

Table 3: Questionnaire to evaluate views about transmission of osteomyelitis

Osteomyelitis is transmitted by	Yes	No
Contacts or blood transfusion?	60	40%
From parents to offspring?		

Table 4: Questionnaire to evaluate

Osteomyelitis may be treated by	Yes (%)	No (%)
Medically?	90	10
Surgery?	60	40
No need of treatment?	25	75

Table 5: Table about etiology of osteomyelitis: Views of postgraduate biology students

Questions	Male (%)		Female (%)		Total (%)	
	Yes	No	Yes	No	Yes	No
Viral disease	20	80	15	85	19	81
Bacterial disease	75	25	87.05	12.50	85	15
Fungal disease	20	80	7.50	92.50	20	80
Genetic disease	0	100	7.50	92.50	6	94
Metabolic disease	20	80	25	75	16	84

of osteomyelitis is imperative for appropriate treatment.^[11]

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