

RESEARCH HIGHLIGHTS

Correlation Between Natural Disaster and Risk of Epidemic

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Bacterial meningitis is the most serious infectious disease that can lead to death or permanent disabilities. This life-threatening disease is characterized by acute inflammation of membranes that surround the brain and spinal cord and protect the Central Nervous System (CNS). Considered as one of the most significant issues regarding public health because of high mortality rates mainly affecting young children and the availability of vaccination against three major etiologic agents¹.

After a natural catastrophe particularly in developed countries, the transmission of infectious diseases is less but it is usually associated with migrated population, immunization levels for vaccine-preventable ailments as well as endemic disorders in the particular territory under observation^{2,3}.

However, it is reported that overcrowding plays a key role in the transmission of infectious diseases and it can lead to the spread of acute respiratory ailments, pneumonia, measles as well as meningitis in the case of natural disaster⁴.

Considering these facts, territories affected with natural disasters should be monitored and proper surveillance should be done to understand the after-effects of the disaster on communicable diseases³.

Accordingly, scientists planned novel research to study the possible effect of the 2009 L'Aquila earthquake on hospitalizations regarding bacterial meningitis, through observational investigation by utilizing the hospital discharge records⁵.

This research revealed that after the 2009 L'Aquila earthquake, an elevated number of patients got hospitalized who were infected with bacterial meningitis probably because of acute lower respiratory tract infections that are usually caused by different pathogens including *H. influenzae*, *S. pneumoniae* and *N. meningitidis*.

Conclusively, this investigation is valuable as it assists to understand and confirm the significance of surveillance to implement control strategies for the management of bacterial meningitis. Moreover, it also sharpens the horizons regarding the epidemiology of meningitis, particularly after a natural disaster.

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