



Tuesday, October 30, 2001

Anthrax discussed at bioterrorism forum

By Jeff Samoray, OU Web Writer

The overall message given by panelists at an Oakland University forum on bioterrorism is that though anthrax is potentially devastating, we have some experience in dealing with such biological agents and are able to respond quickly to containing them and treating its victims.

Four panelists were present for the forum, which took place Tuesday, Oct. 30, at Dodge Hall of Engineering. Panelists included Shane Bies, epidemiologist of the Communicable Diseases Division of the Oakland County Health Department; Craig Petersen, lieutenant fire inspector for the City of Auburn Hills Fire Department; Gabrielle Stryker, assistant professor of Biological Sciences at OU; and Marcus Zervos, director of the Research Institute at William Beaumont Hospital. Each panelist gave a 10-minute presentation, moderated by Janet Blanks, professor of Biomedical Sciences and chair of the Institutional Biosafety Committee at OU, before taking questions from the audience.

Stryker began the forum by presenting the basic biology of anthrax. Among the facts she shared are that anthrax is the first example of a microorganism that can cause disease and kill; it is a bacteria normally associated with cattle and livestock; and it is controlled in countries where cattle are regularly vaccinated. The sole manufacturer of the human anthrax vaccine is the BioPort Corporation in Lansing, Michigan. Animals that survive naturally from acquired anthrax form an immunity, but humans who inhale anthrax spores have a 90 percent mortality rate.

Zervos continued the forum by discussing the reasons why anthrax is used as a biological agent.

"Anthrax has a high mortality rate and is particularly susceptible to the civilian population because there's no natural immunity to it," Zervos said. "Anthrax infections are difficult to diagnose and treat. The mortality rate of untreated cutaneous (skin) anthrax is about 30 percent, but for inhalation anthrax, even with aggressive treatment with antibiotics, the mortality rate is near 100 percent."

Zervos said there have been 32 confirmed anthrax cases to date in the United States, and about 20,000 people are receiving the antibiotic ciprofloxacin for suspected anthrax exposure.

"The use of a biological agent for terrorism is a low probability event with very large, potentially devastating consequences," Zervos said.

Bies continued the forum by discussing the history of bioterrorism, which has been traced to at least the 14th century. Bies said the dissemination of biological weapons is very difficult, and referred to a smallpox outbreak in New York City in 1947 as an example of how we are probably better equipped to handle a similar outbreak of a biological agent today.

"In March of 1947, a man from Mexico who was sick with smallpox came to New York City and was only diagnosed after two hospital workers who had contact with him became sick in less than a month," Bies said. "At that time, six million New Yorkers became vaccinated against smallpox and only 12 people became infected thereafter. With the better communication methods of today and with our heightened awareness, doctors can act upon such diseases much more quickly. We have some experience dealing with biological and chemical weapons, and we can respond more quickly and more easily handle them."

Bies added that there have been no reported anthrax cases to date in the State of Michigan.

Petersen concluded the forum by speaking of protective measures people can take against acquiring an anthrax infection. He spoke of precautionary measures when receiving suspicious packages or letters by mail – people should isolate the item without shaking or bumping it, limit exposure to it, and contact the police. Indicators of suspicious mail include packages with no return address, excessive postage, misspelled words, poor typing or handwriting, or packages possibly mailed from a foreign country. Petersen also asked that citizens use common sense when evaluating potentially "suspicious" mail.

"Ask yourself if you know the sender or if you were expecting the mailing," Petersen said. "Our hazardous material exposure team will pull a sample from the mail for testing only if there's a likelihood that the mailing is an act of terrorism. We treat all such mailings as potential crimes, but cannot test every single piece of mail for anthrax."

During the period allotted for questions, some concern was expressed about the safety of food if it were tainted with anthrax.

“Cooking it alone would not be enough to eliminate the spores,” Zervos said. “The temperatures are not sufficient.”

Bies added that a very high dosage of a biological or chemical agent would be required to infect the population through our water and food supply and that bioterrorism attacks of this sort are unlikely.

For more information, visit the [Bioterrorism Panel Discussion](#) Web page, which includes a list of related links on bioterrorism/biodefense, anthrax and other resources..

SUMMARY

The message given by panelists at an OU forum on bioterrorism is that though anthrax is potentially devastating, we have some experience in dealing with such biological agents and are able to respond quickly to containing them and treating its victims. Four panelists were present for the forum, which took place Tuesday, Oct. 30, at Dodge Hall of Engineering. Each panelist gave a 10-minute presentation, moderated by Janet Blanks, professor of Biomedical Sciences and chair of the Institutional Biosafety Committee at OU, before taking questions from the audience.

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