

Drug gives anthrax protection in animal studies

July 8 2009, By MALCOLM RITTER , AP Science Writer

(AP) -- An experimental drug helped monkeys and rabbits survive anthrax in a series of studies, suggesting it could be useful in case of another anthrax attack.

In 2001, five people died after inhaling [anthrax](#) germs they'd gotten through the U.S. mail.

Doctors now use antibiotics to prevent or treat anthrax, and there is also an anthrax vaccine. The experimental drug works a different way - by blocking deadly anthrax toxin from entering cells. Researchers say it could be combined with antibiotics.

The company that developed the [experimental drug](#) under federal contract has already delivered 20,000 doses to the government for emergency use. It has also asked the [Food and Drug Administration](#) to approve the drug - called ABthrax - under a rule that lets animal studies substitute for human studies when it's not feasible to test a drug in people.

Results of the federally funded animal research are presented in Thursday's [New England Journal of Medicine](#) by researchers at [Human Genome Sciences](#) of Rockville, Md.

In one experiment, monkeys got a single dose of a dummy injection or ABthrax two days before inhaling a lethal dose of anthrax. Those that got the placebo died within six days. But of those that got ABthrax, 7 of

10 in one group and 9 of 10 in a higher-dose group were still alive about a month later.

In another experiment, monkeys inhaled anthrax and then were treated after showing signs of infection. Four weeks later, half of the 14 monkeys in one group and 9 of 14 in a higher-dose group had survived.

Rabbit experiments also showed protection. When treated after signs of infection, for example, 8 of 18 rabbits remained alive two weeks later. In contrast, rabbits that had gotten a placebo all died within five days.

The researchers also injected 333 people with ABthrax to check on safety. The only serious development possibly related to the drug was an inflamed gallbladder, which researchers said was probably due to an underlying medical condition.

In an editorial accompanying the study, Dr. Gary Nabel, director of vaccine research at the National Institute of Allergy and Infectious Diseases, said results suggest ABthrax could provide "an important addition to the existing arsenal" that doctors have against anthrax.

On the Net:

New England Journal: <http://www.nejm.org>

Anthrax information:

<http://www.bt.cdc.gov/agent/anthrax/basics/factsheets.asp>

©2009 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Drug gives anthrax protection in animal studies (2009, July 8) retrieved 20 April 2024 from <https://medicalxpress.com/news/2009-07-drug-anthrax-animal.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.