

Ricin-laced Letter to Obama; Recurring threat calls for long term solutions

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Summary

The recent incident in which ricin laced letters were sent to President Obama highlights the ease with which ricin can be produced, obtained and used.

The Incident

In the United States, James Everett Dutschke, 41 year old martial arts instructor, was arrested by federal agents on April 27 from his home in Tupelo, Mississippi with charges of sending lethal ricin-laced letters to US President Barack Obama. Nearly a week before this arrest, as the United States was confronting the bomb blasts that took place during the Boston Marathon on April 15, three lethal ricin-laced letters were received at the White House. This was an uncanny reminder of 2001 as soon after 9/11, anthrax laced letters were received by some public officials and media houses in which five American citizens were killed and seventeen were sickened in incidents that are regarded as the worst biological attacks in the history of US.¹ A Statement from Public Information Office of the United States Capitol Police on April 16, 2013 said, "Earlier today the United States Capitol Police (USCP) was notified by the Senate mail handling facility that it received an envelope containing a white granular substance. The envelope was immediately quarantined by the facility's personnel and USCP HAZMAT responded to the scene. Preliminary tests indicate the substance found was ricin".² Meanwhile, Federal Bureau of Investigation (FBI) in a statement on April 17 said, "The envelope, addressed to the President, was immediately quarantined by U.S. Secret Service personnel, and a coordinated investigation with the FBI was initiated. It is important to note that operations at the White House have not been affected as a result of the investigation."³

About Ricin

Before discussing the ongoing investigation, it would be essential to understand the

nature of ricin, a toxin with fatal implications even in extremely small doses.⁴ It is produced from the castor bean plant (Botanical name: *Ricinus communis*). According to studies, ricin acts as a ribosome inactivating protein which permanently damages those ribosomes which carry out protein synthesis in body cells. These ribosome inactivating proteins which are present in castor bean plant are lethal and poisoning by ricin may cause severe damages to major body organs. Ricin exposure may lead to severe allergic reactions as well and even a small amount of exposure could be fatal.⁵ The initial symptoms of ricin poisoning may appear within three to twelve hours from the exposure; these symptoms include coughing, stomach pains, fever etc. If ricin has been ingested, initial symptoms which occur within an hour, are stomach ache, gastroenteritis, bloody diarrhoea and vomiting etc. While, in case of inhalation, symptoms would include lung damages etc.⁶ According to the Organization of Prohibition of Chemical weapons, ricin has been placed under the schedule one of toxic chemicals.⁷

According to D.R. Franz and N.K. Jaax, ricin is suited to be an ideal agent for terrorism. This has been used for assassination purposes during cold war.⁸ It would be worth noting that a few incidents of ricin use have taken place in the recent years.⁹ In the light of the present event, recurrence of instances and the relative ease of preparing ricin laced material should be a larger cause of concern.

Ongoing Investigation

Regarding the recent incident, in a statement local field office of FBI and the office of the US attorney noted that suspect Dutschke has been charged with “knowingly developing, producing, stockpiling, transferring, acquiring, retaining and possessing a biological agent, toxin and

delivery system, for use as a weapon.” According to legal provisions, Dutschke will have to face a maximum penalty of life imprisonment, a fine of \$250,000 as well as five years of supervised release, if he is convicted. Initially while investigating this case, US authorities had made arrest of another individual named Paul Kevin Curtis, but later he was released as charges levelled against him were dismissed.¹⁰

Meanwhile, in an eight-page affidavit, FBI Special Agent Stephen Thomason said that Dutschke did online purchasing of castor bean seeds for the purpose of making ricin. As soon as, these seeds were delivered to Dutschke’s house, a publication on safe handling as well as storage of the ricin toxin was downloaded using his laptop. The FBI also recovered a contaminated dusk mask from a garbage bin near Dutschke’s former taekwondo studio; according to affidavit filed, traces of ricin were found on items recovered from this studio. According to FBI more tests may be required to establish that the identified granular material is ricin.¹¹

Concluding observations

The present incident shows the ease with which ricin can be produced using materials and equipment like coffee grinder found in every household. The repeated instances show the extent to which it remains attractive for its lethality and ease of production. In addition, unlike other weapons of mass destruction, ricin remains undetected in transit stage. Therefore more scientific research to enhance detection technique and more research to increase the effectiveness of preventive measures is the need of the hour. Since this threat remains global, international cooperation in research and investments in scientific and monetary capacity may yield best results in the larger human interests.

Endnotes:

- ¹ “Amerithrax or Anthrax Investigation”, Famous Cases and Criminals, Federal Bureau of Investigation (FBI), Available at <http://www.fbi.gov/about-us/history/famous-cases/anthrax-amerithrax/amerithrax-investigation> (Accessed on May 14, 2013)
- ² “2013 Ricin Investigation”, Public Information Office, United States Capitol Police, Washington, D.C, April 16, 2013 available at http://www.uscapitolpolice.gov/pressreleases/2013/pr_04-16-13.php (Accessed on May 7, 2013)
- ³ “FBI Response to Reports of Suspicious Letters Received at Mail Facilities”, National Press Releases, FBI National Press Office, Washington, D.C., April 17, 2013 available at <file:///C:/Users/idsa/Desktop/Ricin-%20C%20B%20W%20A%20r%20t%20i%20c%20l%20e%20FBI%20Response%20to%20Reports%20of%20Suspicious%20Letters%20Received%20at%20Mail%20Facilities.htm> (Accessed on May 7, 2013)
- ⁴ According to a study conducted by European Food and Safety Authority (EFSA), the median lethal dose (LD₅₀) of ricin is around 22 micrograms per kilogram (1.78 mg for an average adult, around 1D 228 of a standard aspirin tablet/0.4 g gross) in humans if exposure is from injection or inhalation. For more see, “Ricin (from *Ricinus communis*) as undesirable substances in animal feed, Scientific Opinion of the Panel on Contaminants in the Food Chain adopted on 10 June 2008”, European Food and Safety Authority (EFSA), The EFSA Journal (2008) 726, 1-38 available at <http://www.efsa.europa.eu/en/efsajournal/doc/726.pdf> (Accessed on May 6, 2013)
- ⁵ “RICIN : Biotoxin”, The Emergency Response Safety and Health Database, Centres for Disease Control and Prevention available at http://www.cdc.gov/niosh/ershdb/EmergencyResponseCard_29750002.html (Accessed on May 5, 2013)
- ⁶ Julia Layton, “What is Ricin?”, How Stuff Works?, available at <http://www.howstuffworks.com/question722.htm> (Accessed on May 5, 2013)
- ⁷ Schedule 1, Toxic chemicals, Organisation for the Prohibition of Chemical Weapons, available at <http://www.opcw.org/chemical-weapons-convention/annex-on-chemicals/b-schedules-of-chemicals/schedule-1/> (Accessed on May 10, 2013)
- ⁸ There have been several incidents involving ricin toxin. In 1978, Georgii Markov, a Bulgarian dissident, was assassinated allegedly using ricin by a Bulgarian secret service operative. For more see, D.R. Franz, N.K. Jaax, “Ricin toxin” in R. Zajtchuk, R.F. Bellamy (Eds.), Textbook of military medicine: medical aspects of chemical and biological warfare, TMM Publications, Washington, DC (1997), pp. 631–642 (Accessed on May 11, 2013)
- ⁹ While these incidents have taken place fairly regularly since October 2003, there has been no reported casualty because of ricin since the incident in 2001.
- ¹⁰ “US authorities charge man in ricin probe”, AFP, April 27, 2013 available at http://www.google.com/hostednews/afp/article/ALeqM5gqSF0Gi04m9-FS4ZmmLfZdz_2c7Q?docId=CNG.359bbf8b6c23801bedef3828d2a1196a.01 (Accessed on May 5, 2013)
- ¹¹ “FBI says lab tests link Mississippi man to ricin letters”, Reuters, April 30, 2013 available at <http://www.reuters.com/article/2013/04/30/us-usa-security-ricin-idUSBRE93T17F20130430> (Accessed on May 5, 2013)