

Heroin Users at Risk for Wound Botulism



The California Department of Public Health (CDPH) has reported its concern about recurrent wound botulism among intravenous drug users, mostly among those who abused black tar heroin, because they say it suggests that exposure does not confer protective immunity to the bacterium. There were 17 cases documented over a 14-year period. They urged clinicians and intravenous drug abusers to be aware of the potential for wound botulism to recur, so that timely diagnosis could be made for the early administration of botulinum antitoxin and appropriate supportive care. This would shorten hospital stays and reduce the risk of respiratory failure.

Botulism is an acute neurologic illness caused by botulinum neurotoxins produced by various *Clostridia* species.

Wound botulism occurs when the wound is contaminated with *C. botulinum* and the neurotoxin is produced in the wound. Early

reports involved trauma cases, but almost all the recent cases involved subcutaneous injection of heroin (skin popping).

CDPH reported the first documented case of recurrent wound botulism in 1997. Since then another 16 cases have been reported, which included 3 people with 2 recurrent episodes. The cases in California made up about 75% of all cases in the US.

The patients were aged 32 to 61 years. 94% were male. All used heroin, with 88% injecting black tar heroin. In general, the clinical presentation was a visible wound, speech difficulty, diplopia, respiratory difficulty, and dysphagia.

Patients who had recurrent episodes sought medical attention earlier – for the first episode, the median was 3 days (range: 1 to 20 days); for the second episode, the median was 2 days (range: 1 to 10 days).

In all episodes, patients received

antitoxins within a day of seeking medical attention. They received antibiotics and had wound debridement. Of the 17 patients, 10 needed mechanical ventilation during the first episode, and 4 needed ventilation for every episode.

CDPH suggested that their report probably represents only a portion of all recurrent cases. Since not all intravenous drug abusers seek medical attention, emergency physicians may not recognise wound botulism, and laboratory tests might not be sensitive enough to identify the pathogen. CDPH warned that doctors should be aware of the limited sensitivity of laboratory tests and base diagnosis on clinical assessment when the tests are negative. [SMA](#)

Source

Yuan J, et al. Recurrent wound botulism among injection drug users in California. *Clinical Infectious Diseases* 2011; DOI: 10.1093/cid/cir005.