Wound Botulism Among Black Tar Heroin Users—Washington, 2003

During August 22-26, 2003, four injection-drug users (IDUs) in Yakima County, Washington, sought medical care at the same hospital with complaints of several days of weakness, drooping eyelids, blurred vision, and difficulty speaking and swallowing. All four were regular, nonintravenous injectors of black tar heroin (BTH), and one also snorted BTH. This report summarizes the investigation of these cases, which implicated wound botulism (WB) as the cause of illness.

Of the four patients, two were men; the patients had a median age of 38 years (range: 31-50 years). Two patients were married and used drugs at the same time and in the same setting as the third patient; however, they did not share injection equipment with the third patient. The fourth patient had no social connection with the other three. All four purchased BTH from the same dealer. No meals or gatherings were attended by all of the patients, and no single common food item had been eaten recently, including no home canned or vacuum-packed foods. On examination, all had cranial nerve palsies, including ptosis, ophthalmoplegia, dysarthria, and diminished or absent gag reflex, and upper extremity weakness, clear sensorium, and no sensory deficits. Three had infected wounds from drug injections. In two patients who went to the hospital with complaints of several days of weakness, drooping eyelids, blurred vision, and difficulty speaking and swallowing, one also had an infected wound. Antitoxin was administered within 12 hours for the three patients with wounds.

Two patients, both subcutaneous IDUs, progressed to respiratory failure despite antitoxin administration and continue to require mechanical ventilation. One is improving in strength and might progress to extubation. The other probably will require long-term ventilatory support. The third and fourth patients, both intramuscular IDUs with milder presentations, were discharged with minimal residual weakness 17 and 9 days after admission, respectively.

At the Washington State Public Health Laboratories, botulinum toxin type A was detected by mouse bioassay in serum specimens obtained from the first two patients, but not from serum of the third and fourth patients. Toxin assays and anaerobic stool cultures from all patients failed to demonstrate botulinum toxin or Clostridium growth, respectively. Anaerobic culture of a wound specimen from the third patient is pending, and a nasal aspirate from the fourth patient was negative. Injection paraphernalia and a sample of BTH have been submitted to CDC for further testing for toxigenic Clostridium bacteria.

Local and state public health officials have notified health-care providers and acute-care facilities to increase suspicion of WB in IDUs and have emphasized the importance of prompt recognition of WB, early antitoxin administration, and appropriate wound treatment. Outreach staff are working through a needle exchange and other venues to inform IDUs about the outbreak, the need to seek immediate care if affected, and the ongoing risks for using BTH.

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CDC Editorial Note: Clinical findings, laboratory results, and epidemiologic features of this outbreak reflect previous descriptions of WB in IDUs. BTH might be contaminated during the “cutting” process through incorporation of spore-laden adulterants such as dirt or boot polish. Heating the drug does not inactivate clostridial spores, and safe injection practices that protect against bloodborne infection do not reduce the risk for WB. In January 2002, a cluster of seven cases of necrotizing fasciitis occurred among IDUs in Yakima County. The route of injection was reported as subcutaneous in three of the patients, two of whom died. Clostridia spp. were identified in specimens from these three cases; in one case, subtyping was carried out, and the isolate was identified as Clostridium sordellii. These persons were in the same IDU network as those in the current botulism outbreak.

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REFERENCES


ARCHIVES Web Quiz Winner

Congratulations to the winner of our September quiz, Kaliaperumal Karthikeyan, MD, consultant dermatologist, Pondicherry, India. The correct answer to our September challenge was scurvy. For a complete discussion of this case, see the Off-Center Fold section in the October ARCHIVES (Chartier TK, Johnson RA, Kaminer M, Tahan S. Palpable purpura in an elderly man. Arch Dermatol. 2003;139:1363-1368).

Be sure to visit the Archives of Dermatology World Wide Web site (http://www.archdermatol.com) to try your hand at the Interactive Quiz. We invite visitors to make a diagnosis based on selected information from a case report or other feature scheduled to be published in the following month’s print edition of the ARCHIVES. The first visitor to e-mail our Web editors with the correct answer will be recognized in the print journal and on our Web site and will also receive a free copy of the The Art of JAMA II.