POLIO-LIKE ILLNESS - USA: (CALIFORNIA) ENTEROVIRUS 68 SUSPECTED, REQUEST FOR INFORMATION

A ProMED-mail post
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[1]
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Source: Los Angeles Times [edited]
<http://www.latimes.com/local/lanow/la-me-ln-polio-like-paralysis-california-20140223,0,4064386.story#axzz2uCOiuQV>

A small number of children in California have come down with polio-like illnesses since 2012 -- suffering paralysis in one or more limbs and other symptoms -- and physicians and public health officials do not yet know why.
A virus may play a role, said Dr Carol Glaser, leader of a California Department of Public Health team investigating the illnesses, which are occurring sporadically throughout the state.
The afflicted kids suffer severe weakness or paralysis, which strikes rapidly -- sometimes after a mild respiratory illness. Scans of the patients’ spinal cords show patterns of damage similar to that found in polio sufferers, Glaser said. 2 of the affected children tested positive for enterovirus 68, a virus that is usually associated with respiratory illness but which has been linked to polio-like illnesses as well.
Dr Keith Van Haren, a pediatric neurologist at Stanford University's Lucile Packard Children's Hospital who has worked with Glaser's team, will present the cases of 5 of the children at the American Academy of Neurology's upcoming annual meeting in Philadelphia.

All 5 patients had paralysis in one or more arms or legs that reached its full severity within 2 days, he said. None had recovered limb function after 6 months.
"We know definitively that it isn't polio," Van Haren added, noting that all had been vaccinated against that disease.
State health investigators have been tracking the new California cases closely since a physician first requested polio testing for a child with severe paralytic illness in the fall of 2012, Glaser said. She called that request "concerning," because polio has been eradicated in the US, and the patient had not traveled abroad.
In the year that followed, Glaser's team continued to hear about additional children with symptoms that could not be chalked up to known causes like West Nile virus or botulism. The median age of the children was 12 years. Glaser did not disclose the total number of illnesses; Van Haren said he was aware of around 20.
[A 4 year old female] Berkeley resident is one of Van Haren's patients. The girl suffered paralysis in her left arm following a brief asthma-like illness in November 2012. "She went to grab a toy, and mid-grasp her arm stopped working," said [her] mother.
[The girl] did not test positive for an enterovirus. Her 2 older brothers have no signs of illness.
Glaser said that it was possible that children who tested negative still may have contracted their illnesses from viruses that couldn't be detected because test samples were "not optimal." She urged doctors to report new cases of acute paralysis so that investigators can attempt to figure out a possible cause.
"We want to hear from local public health jurisdictions and physicians who are seeing similar illnesses," she said.

Van Haren said that most people who are infected by polio or viruses like it never develop symptoms, with only 1 percent developing neurologic complications like paralysis. Scientists do not know why certain people are affected so severely.

[Byline: Eryn Brown]

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ProMED-mail Rapporteur Mary Marshall

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[2]
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Source: BBC News [edited]
<http://www.bbc.co.uk/news/health-26289614>

US doctors are warning of an emerging polio-like disease in California where up to 20 people have been infected.
A meeting of the American Academy of Neurology heard that some patients had developed paralysis in all 4 limbs, which had not improved with treatment.
The US is polio-free, but related viruses can also attack the nervous system leading to paralysis.
Doctors say they do not expect an epidemic of the polio-like virus and that the infection remains rare.
Polio is a dangerous and feared childhood infection. The virus rapidly invades the nervous system and causes paralysis in 1 in 200 cases. It can be fatal if it stops the lungs from working. Global vaccination programmes mean polio is endemic in just 3 countries -- Afghanistan, Nigeria, and Pakistan.

There have been 20 suspected cases of the new infection, mostly in children, in the past 18 months.
A detailed analysis of 5 cases showed enterovirus 68 -- which is related to poliovirus -- could be to blame.
In those cases all the children had been vaccinated against polio.
Symptoms have ranged from restricted movement in one limb to severe weakness in both legs and arms.
Dr Emmanuelle Waubant, a neurologist at the University of California, San Francisco, told the BBC: "There has been no obvious increase in the pace of new cases so we don't think we're about to experience an epidemic, that's the good news.
"But it's bad news for individuals unlucky enough to develop symptoms which tend to be moderate to severe and don't appear to improve too much despite reasonably aggressive treatment."
The cases have been spread over a 100-mile diameter (160 km) so the research team do not think the virus represents a single cluster or outbreak.
However, many more people could have been infected without developing serious symptoms -- as was the case with polio.

Dr Waubant suspects similar cases in Asia could explain why California is affected, but not the rest of the US.
Fellow researcher Dr Keith Van Haren, from Stanford University, said the cases "highlight the possibility of an emerging infectious polio-like syndrome" in California.
He added: "We would like to stress that this syndrome appears to be very, very rare. Any time a parent sees symptoms of paralysis in a child, the child should be seen by a doctor right away."

Commenting on the findings, Jonathan Ball, a professor of virology at the University of Nottingham, told the BBC: "Since the near-eradication of poliovirus, other enteroviruses have been associated with paralysis, but these viruses usually cause a very mild cold-like illness and severe complications are very rare.

"Two children showed evidence of being infected by a strain of virus called enterovirus 68, which has become strongly associated with outbreaks of respiratory illness.

"Whether or not this strain of enterovirus has caused these or other cases of paralysis is possible but remains conjecture, further studies will be needed to determine this."

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Communicated by:
PromED-mail
<promed@promedmail.org>

[The 2 media reports above provide somewhat differing reports on the occurrence of a polio-like paralytic illness identified since 2012 in California. The details provided in the media reports are sparse but suggest that there may have been up to 20 cases presenting with an acute flaccid paralysis (AFP) following a mild respiratory illness. 2 out of 5 cases specified in the 1st report have had an enterovirus 68 isolated from stool specimens (whereas in the 2nd report 5 cases had enterovirus 68 identified). Actual details of the clinical presentations of the cases were not reported.

Non-polio enteroviruses (NPEVs) have been associated with polio-like paralytic disease. As part of the global polio eradication initiative, stool specimens are to be collected and sent for virus isolation on all cases of acute flaccid paralysis (AFP) that are identified. This massive laboratory supported effort has led to the identification of many non-polio enteroviruses associated with AFP (see references listed below for a representative sampling of the types of viruses associated with AFP. Of these NPEVs, EV71 has been most notably associated with paralytic disease, and more recently, sub-genogroup C4a was associated with AFP in Australia (see ProMED-mail Human enterovirus 71 - Australia: sub-genogroup C4a, acute flaccid paralysis 20130526.1738087). While EV68 has been anecdotally associated with AFP, it has been identified as a cause of severe respiratory disease (see ProMED-mail Human enterovirus 68 - novel pathogen, worldwide 20110929.2945 with a Morbidity and Mortality Weekly Report (MMWR) article summarizing the reports of respiratory illness associated with EV68).

More information on the actual numbers of cases, ages of cases, geographic distribution, number of cases with adequate specimens processed for viral etiology studies, results of laboratory studies, and whether there have been virologic studies of contacts of these AFP cases will be appreciated. All of these are questions that need to be addressed to assist in interpreting the significance of the reports above.

For a map showing the location of California in the USA, see <http://healthmap.org/r/3DHP>.}