

Enterovirus 71 outbreak in Western Australia associated with acute flaccid paralysis. Preliminary report.

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There have been 6 cases of acute flaccid paralysis (AFP) identified in Perth, Western Australia since March 1999 (2 in March, 2 in April, 1 in May and 1 in June). All cases have been in children under 2 years of age. Four of these cases are associated with enterovirus shedding (throat and stool) and EV71 has been identified by neutralisation in 2 of the cases. Stool specimens from 4 of the cases have been submitted to the Polio Reference Laboratory in Melbourne. Poliovirus infection has been ruled out in the 2 cases with confirmed EV71 infection and is pending in 2 other AFP cases.

Three of the 6 cases have residual weakness 1-2 months after illness onset and 1 case remains in hospital with prolonged flaccid paralysis requiring ventilation.

In addition, 12 cases of aseptic meningitis associated with enterovirus shedding (1 CSF isolate, the other isolates from throat and stool) have been identified. These cases have occurred in association with a large epidemic of hand, foot and mouth disease (HFMD) in Perth and in rural areas of Western Australia. One of the AFP cases comes from Kalgoorlie.

An enterovirus has been isolated from skin lesions or throat swabs from 15 uncomplicated HFMD cases, and 3 of 4 skin isolates have been confirmed as EV71. The EV71 isolates come from individuals living across the Perth metropolitan area and Mandurah, suggesting that EV71 activity has been widespread in recent months.

The origin of this virus is unknown. Whilst the recent EV71 epidemics in South-East Asia suggest a possible source, the acute myelitis observed in the Perth cases is clearly different from the brainstem encephalitis which characterised the severely affected cases in those epidemics. Molecular epidemiological studies of the Perth EV71 isolates are underway.

Public health measures instituted at this stage have included widespread media coverage to raise public awareness, and information and fact sheets distributed to all general practitioners and acute hospitals. In addition, child-care centres across the State have been given information emphasising the importance of good hygiene, and that children with HFMD should be excluded. Paediatric hospitals in other States and Territories have been advised.

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