Abstract

AIM: to disseminate the indicators of associated paralytic poliomyelitis found during 44 years in children that received the oral antipoliomyelitis vaccine, which was only administered in massive vaccination campaigns from 1963 to 2006, and to report the risk of vaccine-associated paralytic poliomyelitis as regards different epidemiological aspects. METHODS: a retrospective study was undertaken in 596 cases of acute flaccid paralysis in children admitted in pediatric hospitals, based on virology researches, and on the detection of different epidemiological variables. RESULTS: 120 viral agents were isolated from 113 studied patients. 30 were identified as poliovirus. The clinical and epidemiological data from 596 cases of acute flaccid paralysis allowed to categorize 20 children affected with vaccine-associated paralytic poliomyelitis. All the cases were children under one that were exclusively administered the oral antipoliomyelitis vaccine through the strategy of the massive vaccination campaigns. 19 of them were caused by the first dose. Global risk in children vaccinated with the first dose from 1963-2006 was of one in 379 888 (7 217 866 doses administered/19 cases with vaccine-associated paralytic poliomyelitis). Cases of vaccine-associated paralytic poliomyelitis have been sporadic or in a group of 8 cases during 1989-1992. The risk of first dose in sporadic cases was of one in 612 864, and in the group of 1 in 84 670. The risk of grouped cases is 7.2 times higher than those occurred in isolated cases. Particularly, in 1992, coinciding with an outbreak of epidemic neuropathy, the risk was of one in 52 140, which represented an increase of 11.8 times compared with sporadic cases. Children aged 4-7 months old also had a higher risk of 1 in 132 812. CONCLUSIONS: there were identified epidemiological aspects that augmented the risk of vaccine-associated paralytic poliomyelitis, in which the aspects of nutritional deficiencies coincided.

Keywords

VAPP, OPV, poliomyelitis surveillance, epidemic neuropathy, vaccine complications.