

AN IMPORTED CASE OF VACCINE-DERIVED POLIOVIRUS TYPE 2 IN MURCIA REGION 2021, A PUBLIC HEALTH EMERGENCY

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ANTECEDENTES

The monthly retrospective search for unreported acute flaccid paralysis (AFP) cases conducted as a complementary component of the Spanish AFP surveillance system identified a case of AFP in a child admitted in Spain from Senegal during August 2021.

MATERIAL Y MÉTODOS

Events sequence of case during summer 2021

Beginning of July:

- Onset of symptoms in Senegal.

Beginning of August:

- A child arrived in Murcia, from Senegal.
- The patient was admitted to hospital to treatment of an acute flaccid paralysis (AFP) without aetiology.

Second week of August,

- Enterovirus was found in a respiratory sample (characterised as coxsackievirus B4) and in faeces.
- The patient was discharged from hospital with the diagnosis of AFP secondary to acute anterior meningomyelodradiculitis because of enterovirus infection.

Beginning of September:

- The case stayed with a local family in a municipality of Murcia Region.
- After that, returning to Senegal.

First week of September:

- The AFP case was identified by the Epidemiology Department in the Region of Murcia and notified to CNE.
- A stool sample of the case was retrieved and sent to the CNM.

Mid- to end-September:

- Sequencing of the complete VP1 genomic region indicated that it was a vaccine-derived poliovirus 2.
- Vaccination card showed 4 doses of oral and 1 dose of inactivated polio vaccine received in the first year of life.

*No conflict of interest.

Distribution of contacts of a case with vaccine-derived poliovirus type 2 by region, Spain, September 2021 (n = 42)

Region	Close contact	Casual contact	Total
Murcia	19	17	36
Madrid	0	5	5
Canary Islands	1	0	1
Total	20	22	42

OBJECTIVES

To present response undertaken within the framework of the National Action Plan for Polio Eradication and the Public Health Emergency of International Concern as consequence of the identification of poliovirus case in September 2021.

RESULTS

Measures undertaken to respond to the event:

- Identification and classification of contacts, collection of stool samples and vaccination.
- Virological analysis in contacts and in wastewater.
- Enhanced surveillance from all hospitals in the Region of Murcia
- National and international coordination were set up.

Classification of contacts of the case with vaccine-derived poliovirus type 2 and measures undertaken, Spain, September 2021

Classification	Definition/type of exposure	Measures	
		Collection of stool samples	Vaccination
Close contact			
I	Cohabitants and non-cohabitants with intense direct physical contact i.e. helped with personal hygiene, helped with feeding, played with physical contact	Collection and analysis of two faecal specimens collected >24 h apart	One dose of IPV vaccine
II	Non-cohabitants with prolonged direct physical contact i.e. rehabilitation care		
Casual contact			
III	Stayed in the same room without direct physical contact	Collection of two faecal specimens collected >24 h apart; analysis if positive samples were identified in close contacts	Considered if positive samples were identified in close contacts
IV	Any other person who has not had physical contact but has had some contact with the case i.e. family member who visited the household for a short time		

IPV: inactivated polio vaccine.

- A retrospective search for potential additional cases has been conducted through a review of all admissions.
- A daily zero-reporting system was established to ensure prospective and timely reporting of all suspected cases.

CONCLUSIONES

Given the high standards of sanitation, the high vaccination coverage and high level of immunity against polio virus, with good detection and response to events related to polio, there were no transmission of PV in Spain. Although indicators show that the AFP surveillance system in Spain is of good quality, its sensitivity has decreased in recent years, possibly as a consequence of the absence of polio cases.