VI Jornada del programa de vacunaciones de la región de Murcia

Murcia, 28 de septiembre de 2012

Acontecimientos psicógenos asociados a la vacunación

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FPNE / Pseudocrisis (PSC): Concepto

Los FPNE o PSC son trastornos neuropsiquiátricos que se presentan como una combinación de signos neurológicos y conflictos psicológicos subyacentes, sin patología epileptogénica asociada.

La France Jr et al *Epilepsy&Behavior,* 8:451-461(2006)

FPNE/PSC: Estado de la cuestión

- La comunidad médica ha acumulado muchos datos en la comprensión de este fenómeno, epidemiología, riesgos, comorbilidad y pronóstico de los FPNE.
- El uso de la monitorización video-EEG ha aumentado el conocimiento de las PSC.
- Conocemos que las PSC no responden a los tratamientos convencionales y que pueden tener consecuencias devastadoras tanto en la salud como sociales.
- Las causas son multifactoriales y resultan de una combinación de insultos del desarrollo y del entorno, aunque no existe un modelo fisiopatológico específico (animal).

La France Jr et al *Epilepsy&Behavior,* 8:451-461(2006)

FPNE/PSC: Estado de la cuestión

- El progreso se ha basado en la comprensión del diagnóstico psiquiátrico comórbido y de las características neuropsicológicas de los pacientes con PSC.

- La falta de modelos biológicos, de clasificaciones diagnósticas claras y de cuidados validados continúan provocando un impacto negativo en el desarrollo del tratamiento.

- Existe una gran necesidad de una colaboración interdisciplinar (pediatra, neuropediatra, psiquiatra, psicólogo) para llegar a un tratamiento adecuado.

- La “Década del Cerebro” aportó avances terapéuticos en muchos trastornos neuropsiquiátricos, sin embargo, las PSC ocupan un hueco entre la neurología y la psiquiatría y su tratamiento permanece poco estudiado.

La France Jr et al *Epilepsy&Behavior,* 8:451-461(2006)

Nonepileptic Seizures in Children

*Hema Patel, †Eric Scott, *,†David Dunn, and *Bhuwan Garg

Table 3. Clinical description of the NES

Types of events	Group A	Group B
Prominent motor activity	10	33
Generalized jerking/flailing	6	13
Focal motor activity	2	10
Complex motor activity	1	8
Generalized tremor	1	2
Subtle motor activity	19	11
Staring	8	3
Head shaking	5	1
Generalized limpness	2	3
Behavioral changes/combativeness	2	3
Eye fluttering/visual blurring	1	1
Oromotor activity	1	0

The n refers to number of event types and not number of patients.

In group A, five patients had two event types and one patient had three event types.

In group B, seven patients had two event types.

Grupo A: < 12 años Grupo B: > 12 años

Epilepsia, 48(11):2086–2092, 2007

Nonepileptic Seizures in Children

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Table 4. Stressors or contributing factors

	Group A (n = 16/22)	Group B (n = 30/37)
School difficulties (45.7%)	8 (36.3%)	19 (51.3%)
Difficulty with learning, poor performance	3	3
Stress with school work	2	3
School phobia	1	4
Change of routine (teacher, environment)	2	2
Behavioral problems-detention, suspension		3
Missed school (due to spells)		4
Family discord (42.3%)	10 (45.4%)	15 (40.5%)
Divorce/separated	5	10
Parental or sibling hostility	2	3
Domestic physical abuse	3	0
Financial stress		1
Relative in jail		1
Interpersonal conflicts		
(teachers, peers) (25.4%)	5 (22.7%)	10 (27%)
Conflict with peers/friends	2	7
Conflict with teacher	3	2
Accused of stealing		1
Abuse (16.9%)	3 (13.6%)	7 (18.9%)
Physical abuse (11.8%)	2 (9.09%)	5 (13.5%)
Sexual abuse (5%)	1 (4.5%)	2 (5.4%)
Somatic illness (15.2%)	3 (13.6%)	6 (16.2%)
Problems with self image (obese)	2	1
Injury restricting activity		2
Systemic illness	1	3
Bereavement (13.5%)	1 (4.5%)	7 (18.9%)
Family illness (10%)	2 (9.09%)	4 (10.8%)
Cancer	1	3
Huntington's disease		1
Unknown illness	1	

Information was not available for 13 patients: six in group A, seven in group B. Some patients had more than one probable contributing factor.

Epilepsia, 48(11):2086–2092, 2007

FPNE/PSC: Otros factores familiares

Conclusión del estudio de Wood et al:

- Aunque la epilepsia provoca problemas físicos y emocionales en los pacientes, sus familias están relativamente sanas.
- Sin embargo, las familias de pacientes con PSC están más alteradas y pueden contribuir inconscientemente a las PSC a través del stress familiar, la crítica y las tendencias a somatizar.

Wood et al, *Epilepsia,* 39(4):432-437,1998

Brainstem lesions and epilepsy

Studies performed over the last 30–50 years have shown that brainstem involvement in epilepsy in the majority of cases is related to generalized seizures (Faingold, 1987). However, there are some studies that show that it is possible to have focal epilepsy with brainstem lesions. An upper brainstem lesion has been reported to result in focal motor seizures repeatedly induced by alerting stimuli (Hirsch et al., 2008), and a focal epilepticus has been reported as a result of pontine activation due to hamartoma of the floor of the fourth ventricle (Pontes-Neto et al., 2006) similar to the Yagyu study.

Eleftherios S. Papathanasiou

Letter in Gray Matters, Epilepsia, 2012; 53(2): 393

Mass psychogenic illness following tetanus-diphtheria toxoid vaccination in Jordan

Saad Kharabsheh,[1] Haidar Al-Otoum,[2] John Clements,[3] Adnan Abbas,[4] Najwa Khuri-Bulos,[5] Adel Belbesi,[6] Taky Gaafar,[7] & Nora Dellepiane[8]

Bulletin of the World Health Organization, 2001, **79**: 764–770.

En septiembre de 1998, más de 800 jóvenes de Jordania creyeron haber sufrido los efectos secundarios de una vacuna de anatoxina tetánica-diftérica administrada en la escuela; 122 niños fueron hospitalizados. En la gran mayoría de esos niños los síntomas no se debían a la vacuna sino a un fenómeno psicógeno masivo.

La influencia de los medios de comunicación, de los padres de los niños y de los médicos en la escalada que dio lugar a esta reacción masiva fue a primera vista inhabitual, si no excepcional, en las circunstancias de Jordania en ese momento. No obstante, el examen de la literatura reveló que esta respuesta masiva tenía muchos puntos en común con brotes anteriores, si bien las causas subyacentes eran distintas. Hay aproximadamente unos 200 casos publicados de respuestas masivas a presuntas intoxicaciones o eventos de otro tipo. Dado que esas reacciones masivas son relativamente infrecuentes, y que los factores que pueden desencadenarlas son muy diversos, quienes deben responder a ellas difícilmente poseen la experiencia previa necesaria para manejarlas, no suelen tomar medidas contundentes para evitar su escalada, y muchas veces incluso desconocen que hay precedentes del fenómeno. Las lecciones que cabe extraer de este incidente ocurrido en Jordania pueden ayudar a otros gestores de programas de inmunización a manejar mejor esas crisis en otros lugares.

Table 1. **Symptoms in the 55 vaccinated students admitted to hospital from the index school**

Symptoms	No. of vaccinated students affected
Pyrexia more than 38.0 °C	24
Pyrexia more than 38.5 °C	8
Hypotension	1
Chest tightness (needed oxygen)	21
Chilliness	33
Feeling faint	12
Electrocardiogram changes (these were normal by the next day)	7

Mass psychogenic illness following oral cholera immunization in Ca Mau City, Vietnam

Abstract

Introduction: Targeted cholera immunization of high-risk populations in Vietnam is conducted based on routine surveillance data. Following mass immunization of schoolchildren in Ca Mau City using an oral bivalent killed cholera vaccine, adverse reactions were noted.

Methods: Salient data were collected in a systematic fashion including the review of medical records; interview of the school principal, teachers, students, parents and doctors; and review of the storage and handling of the vaccine.

Findings: On 18 December 2001, 234 children at a primary school in Ca Mau City received the cholera vaccine. Within 1 h of immunization, three children in one of the classrooms complained of trembling, nausea and headache and were brought to the library and soon other children followed. Out of 234, 97 (42%) pupils were affected and brought to the Municipal Health Center or Ca Mau Provincial Hospital. Those who were affected were younger (mean age = 9.6 years; 95% CI = 9.4–9.7) compared to those who were not affected (mean age = 10 years; 95% CI = 9.7–10.3; *t*-test = −2.4; *P*-value = 0.02). The proportion of affected females among those who had received the vaccine (49/114 or 43%) was similar to the proportion in males (48/120 or 40%; RR = 1.07; 95% CI = 0.79–1.46). The most frequent presenting complaint was cold extremities (60%) followed by headache (27%). All affected children recovered and were discharged in a few hours. None reported any sequelae or relapse. Once the situation was recognized, the cholera immunization campaign was continued. Laboratory tests of vaccine samples from the same batch detected no abnormality or contaminating agent.

Discussion: The findings suggest that the children at primary school number 1 suffered from a mass psychogenic illness. This incident was unusual in that a similar number of boys and girls were affected, in contrast to the frequently reported preponderance of female cases. Furthermore the underlying cause was very quickly diagnosed, medical interventions were kept to a minimum, and no relapse was observed. Future vaccination campaigns have to assure that the families are informed in advance.

H.B. Khiem et al. / Vaccine 21 (2003) 4527–4531

Mass psychogenic response to human papillomavirus vaccination

Jim P Buttery, Simon Madin, Nigel W Crawford, Sonja Elia, Sophie La Vincente, Sarah Hanieh, Lindsay Smith and Bruce Bolam

Details of a mass psychogenic event

On 7 May 2007, 720 girls aged 12–17 years received 4vHPV at a girls school in metropolitan Melbourne. Within 2 hours of vaccination, 26 girls presented to the school's sick bay with symptoms including dizziness, syncope and neurological complaints. Four were transported by ambulance to a nearby paediatric hospital with a range of symptoms, including palpitations (1), dizziness (4), syncope or collapse (3), weakness (3) and aphasia (1).

Further history-taking and examination, including specialist paediatric neurological review, found no organic basis for the reported symptoms. The results of all investigations, including neuroimaging and electroencephalography in one patient and electrocardiography in another, were normal. Two patients recovered spontaneously and were discharged from the emergency department, while the other two were observed overnight and discharged the following day. One was readmitted 2 days later after a further episode of syncope with subsequent lower limb weakness, but was discharged the following day.

A review of the school vaccination processes showed that all recommended procedures had been followed: each vaccine was administered to seated children without others watching, there were separate entrances and exits for vaccinees, and a single class queued at any one time. Importantly, the entire school was built around a central quadrangle, with each of the 26 symptomatic girls taken to the sick bay being led through there in view of all classrooms.

Mass psychogenic illness in nationwide in-school vaccination for pandemic influenza A(H1N1) 2009, Taiwan, November 2009–January 2010

W T Huang (muagi@cdc)[1], C C Hsu[2], P I Lee[3], I H Chuang[1]

Euro Surveill. 2010;15(21):pii=19575. Available online: http://www.eurosurveillance.org/ViewArticle.

This article has been published on 27 May 2010

TABLE

Characteristics of mass psychogenic illness to pandemic influenza A(H1N1) vaccination involving 15 or more schoolchildren, Taiwan, 16 November 2009–22 January 2010

Date reported	Number of students vaccinated	Number of ill students (%)[1]	Females (%)[2]	Median age in years (range)	Number of ill students hospitalised	Predominant symptoms
23 Nov	692	46 (7)	26 (57)	13 (12–15)	1	Dizziness, nausea, weakness
24 Nov	1,831	19 (1)	15 (79)	14 (13–15)	0	Hyperventilation, nausea, dyspnea
24 Nov	100	17 (17)	15 (88)	12 (12–15)	0	Dizziness, nausea
25 Nov	1,173	24 (2)	15 (63)	13 (12–14)	0	Dizziness, hyperventilation
26 Nov	768	37 (5)	24 (65)	13 (12–16)	0	Dizziness, headache
26 Nov	537	16 (3)	14 (88)	15 (12–15)	0	Dizziness, nausea, headache
27 Nov	266	21 (8)	10 (48)	10 (6–12)	0	Dizziness, headache, nausea
30 Nov	1,760	17 (1)	10 (59)	11 (8–12)	0	Nausea
7 Dec	817	32 (4)	23 (72)	12 (12–15)	0	Dizziness, nausea
10 Dec	1,171	43 (4)	32 (74)	12 (12–14)	0	Dizziness, hyperventilation, headache

[1] Proportion of students vaccinated.

[2] Proportion of ill students.

Chien-Yu Lin,Chun-Chih Peng, Hui-Ching Liu, Nan-Chang Chiu

Psychogenic Movement Disorder After H1N1 Influenza Vaccination

J Neuropsychiatry Clin Neurosci 22:3, Summer 2011

Psychogenic movement disorder remains a diagnostic challenge to physicians, and most are diagnosed after age 10. The diagnosis of psychogenic movement disorder is difficult, and the prevalence is about 3.1% in pediatric movement-disorder populations. Anticipating stressors, secondary gain, and malingering are frequently noted in patients with psychogenic movement disorder, and precipitants are common, such as trauma or major emotionally stressful life events. Our patient is relatively younger (girl, age 7y 9m) and psychogenic movement disorder after vaccination has rarely been reported previously. In conclusion, the emerging importance of psychiatric disorder in children raises our attention. In facing the pandemic infection, psychogenic stress should be concerned and the idea that a universal vaccination program may result in mass psychogenic illness. Psychogenic movement disorder is easily neglected in children, and it may be precipitated by influenza vaccination.

McNeil MM, Arana J, Stewart B, Hartshorn M, Hrncir D, Wang H, Lamias M, Locke M, Stamper J, Tokars JI, Engler RJ.

A cluster of nonspecific adverse events in a military reserve unit following pandemic influenza A (H1N1) 2009 vaccination-possible stimulated reporting?

Vaccine. 2012 Mar 23;30(14):2421-6. Epub 2012 Feb 3.

Abstract

BACKGROUND:

On February 20, 2010, a 23 year old male Army Reservist (index case) with symptom onset 4 h after receiving inactivated monovalent pandemic 2009 (H1N1) vaccine (MIV) was hospitalized with possible Guillain-Barré syndrome (GBS). Within 1-2 days, 13 reservists from the same unit presented to the emergency department and 14 filed Vaccine Adverse Event Reporting System (VAERS) reports of nonspecific symptoms following MIV.

OBJECTIVES:

To describe the spectrum of adverse events (AE) among reservists in the unit after MIV and to identify factors contributing to this cluster of reports.

METHODS:

We reviewed the reservists' VAERS reports and hospital records for demographics, influenza vaccination status, diagnostic results and outcome. All VAERS reports after vaccination from the same MIV lot were also screened. We conducted a survey of unit reservists to identify contributing

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RESULTS:

The presumptive diagnosis of GBS in the index case was not confirmed. All other reservists demonstrated normal exam findings and laboratory investigations. VAERS reports following vaccination from the same MIV lot revealed no consistent pattern. Our survey of factors contributing to the cluster was returned by 55 reservists (response rate 28%). AEs following MIV were significantly more often reported by female and black reservists. There was a tendency for concern about the safety of the 2010-2011 seasonal influenza vaccine to be higher for reservists that reported an AE to MIV (p=0.13) or that sought medical attention for their symptoms (p=0.08).

CONCLUSIONS:

This cluster represents possible stimulated reporting following receipt of inactivated pandemic 2009 (H1N1) vaccine among service personnel.

Mass Psychogenic Illness After Vaccination

C. John Clements

Drug Safety 2008; 26 (9): 599-604

When vaccines are administered to groups, the physical reactions of the recipients may be similar, causing a form of mass reaction, the mechanism for which is the same as that for mass reactions from other causes. These phenomena have been categorised as mass psychogenic illness (MPI), and have been defined as the collective occurrence of a constellation of symptoms suggestive of organic illness but without an identified cause in a group of people with shared beliefs about the cause of the symptom(s). A review of the literature shows that such outbreaks have been reported in differing cultural and environmental settings including developing and industrialised countries, in the work place, on public transport, in schools, and the military. The perceived threats have been against agents such as food poisoning, fire and toxic gases. Whatever the place or perceived threat, the response seems to be similar. The symptoms generally included headache, dizziness, weakness, and loss of consciousness.

Once under way, MPIs are not easy to stop. Incidents reported in the literature show that they can quickly gather momentum and can be amplified by the press who disseminate information rapidly, escalating the events. Management of such mass events can be extremely difficult. Should the public health official in charge continue to try and determine the cause, or should this person call off the entire investigation? It is suggested here that once vaccines are identified as a probable cause of the phenomenon, a dismissive approach may actually be harmful. Unless the spokesperson has already earned a high level of trust, the public are not likely to be convinced easily that nothing was wrong with the vaccine until it has been tested.

An increased awareness of MPIs on the part of organisers of future mass vaccination campaigns seems appropriate. Immunisation managers should be aware that mass immunisation campaigns could generate such mass reactions. It is therefore essential that surveillance/reporting systems for reporting adverse events be improved before such campaigns. A mass campaign using a smallpox vaccine should be accompanied by a surveillance system capable of distinguishing between multiple cases of conventionally understood vaccine reactions and outbreaks of mass psychogenic illness.

Mass Psychogenic Illness After Vaccination

C. John Clements

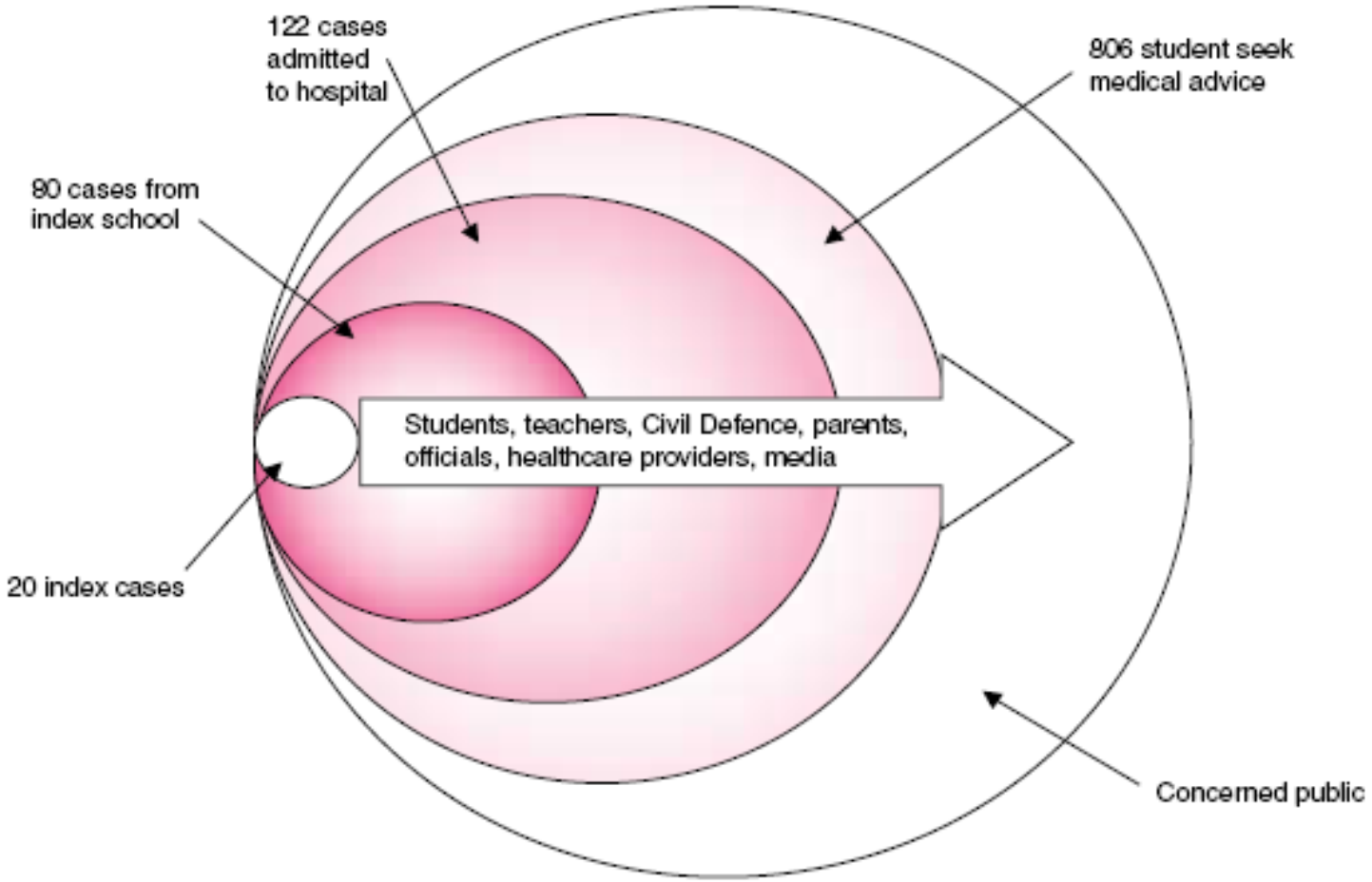

Fig. 1. Ripple effect on an outbreak of 'mass psychogenic illness after vaccination' caused by transfer of information (Jordan, 1998).

- Tratamiento propuesto de FPNE/PSC:

1. Neurológico:
   - **Un aspecto fundamental del tratamiento consiste en comunicar bien el diagnóstico.**
   - Suprimir progresivamente politerapia antiepiléptica.
   - Mantener temporalmente LEV y suprimir posteriormente.

2. Psiquiátrico:
   - Antidepresivo.

3. Psicológico:
   - Tratamiento cognitivo-conductual.

FPNE/PSC: Pronóstico

- **Factores de buen pronóstico**:
  - Edad de aparición: cuanto más precoz, mejor pronóstico.
  - Diagnóstico precoz y adecuadamente trasladado al paciente y familiares.
  - No se conoce un tratamiento “ideal”, parece que hasta ahora distintas estrategias conducen a unos resultados similares.
  - En edad pediátrica la desaparición de las PSC se obtiene entre el 60-80%.

- **Factores de mal pronóstico**:
  - Larga evolución (adultos: 71.2% persisten PSC y 56.4% son dependientes de la seguridad social, *Reuber et al Ann Neurol 2003*).
  - CI < 70
  - Comorbilidad asociada: epilepsia, trastornos psiquiátricos.

CONCLUSIONES

1. Sospechar la hipótesis de enfermedad psicógena masiva ante una campaña de vacunación global.

2. Los FPNE/PSC en el niño y el adolescente tienen una inadecuada información en la literatura en cuanto a las características clínicas, tratamiento, y evolución en relación a las PSC del adulto.

3. No hay diferencia de género hasta la pubertad. A partir de ahí predominan las chicas de forma similar a como sucede en el adulto.

4. En la clínica de los niños predomina una sutil actividad motora, mientras que en los mayores la actividad motora es más evidente.

CONCLUSIONES

5. Los factores de riesgo más importantes en los niños incluyen disfunción cognitiva y epilepsia parcial.

6. El factor de riesgo más común en los adolescentes es la depresión.

7. Los FPNE/PSC en los niños son de naturaleza estereotipada y la repetición de estos episodios puede suponerse que no son orgánicos.

8. La identificación de los niños de riesgo, el diagnóstico precoz y estudios prospectivos para desarrollar opciones de tratamiento adecuado, son fundamentales para un pronóstico favorable.


Muchas gracias