Centro Médico Integral Fitz Roy

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Guillain Barré syndrome after occupational exposure, a case report

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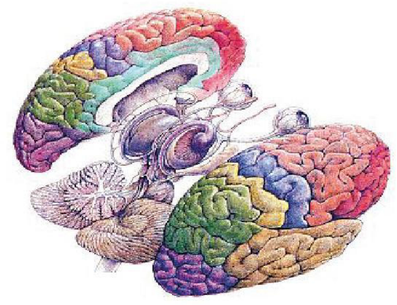


Introduction and Purpose

We report a patient who developed Guillain-Barré syndrome (GBS) after occupational exposure to biohazardous material from an unknown source.

Medical record

57 year old maid who worked in a hospital room of a paediatric hospital, suffered a puncture wound with a hollow, bloody needle in the right hand, on 17/11/06 an unknown source. At the time he was given the hepatitis B vaccine and antiretroviral medication (zidovudine +lamivudine). Within 48 hours of the incident he started feeling generalized muscle weakness, fatigue, weakness and headache which increased with each hour. Physical examination: lucid, oriented, afebrile, generalized muscle hypotonia.

No history of infections in the past 3 months. Progress in a few days with flaccid paresis of all limbs, dysarthria, and pulmonary ventilation disorders, impaired swallowing, diminished tendon reflexes in upper limbs, patellar and Aquilianos abolished without meningeal signs, dysautonomic signs and constipation. On the 5th day of hospitalization he was treated with plasmapheresis (5 sessions) and kinesiological rehabilitation. The recovery was gradual, with a peak at 75th day of hospitalization.

Supplementary examination

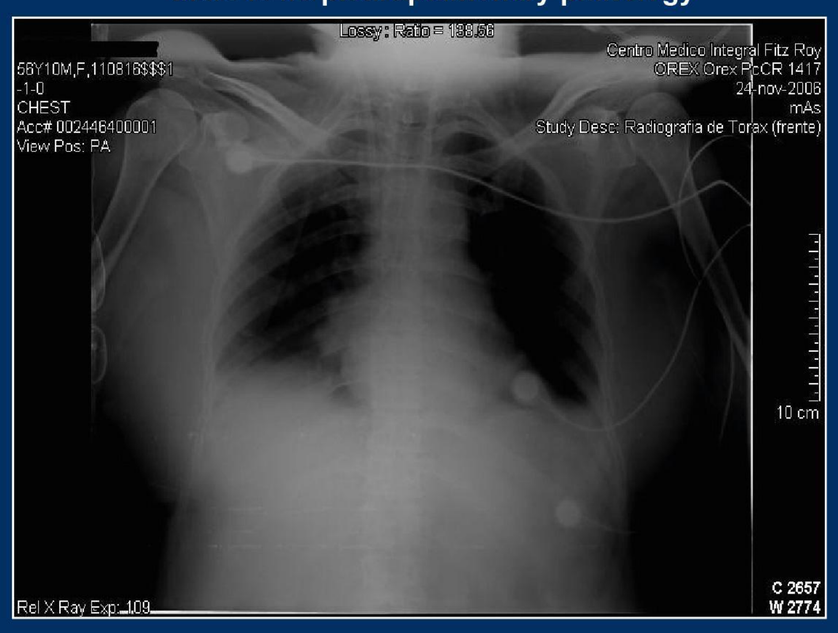
Leukocytes: 10200/mm3. CPK: 38 IU / l. SGOT 18 IU / l. SGPT 21 IU / l

EMG: Axon-myelin polyradiculoneuropathy. MRI of the brain and cervical spine: no pathological findings.

CSF: albumin-cytological dissociation (protein concentration 105 mg%, WBC 0).Neurovirus detection (HSV, VZV, CMV,EBV, Enterovirus) negative CSF PCR. Detection of antibodies against measles IgM and IgG negative CSF.

PCR negative for HIV p24 antigen. HBs Ag, antiHBc IgG and antiHCV unreactive. Blood and stool culture negative. Chest x-ray where pleuropulmonary lesions were not observed.

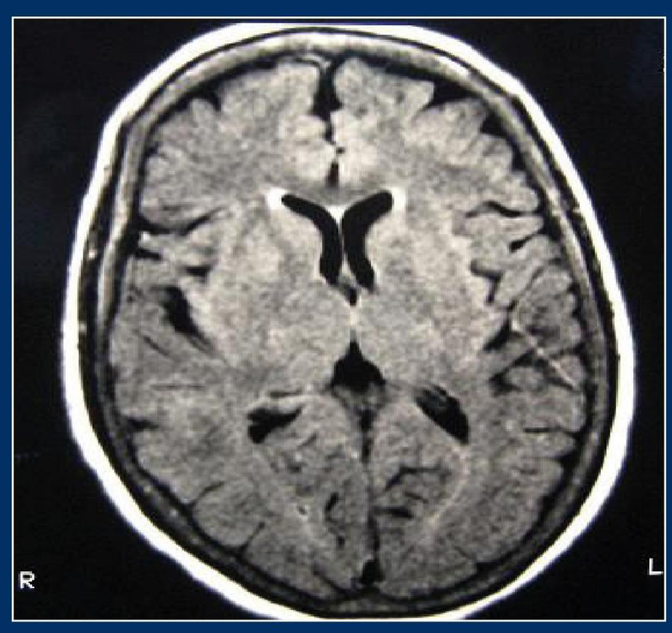
Chest radiograph of the patient where there is no pleuropulmonary pathology



CSF Characteristics

	11/22/06	11/23/06	12/05/06
Fasting Glucose	113 mg/dl	134 mg/dl	124 mg/dl
CSF	Rock Crystal	Rock Crystal	Rock Crystal
	Glucose 70 mg/dl	Glucose 78 mg/dl	Glucose 83 mg/dl
	Protein 0,11 g/L	Protein 0,41 g/L	Protein 1,05 g/L
	Cells 0	Cells 0	Cells 0

MRI of the brain without pathology



Discussion and differential diagnosis

History of infection within 28 days prior to the onset of symptoms occur in 50% of people with GBS, mainly respiratory infections or gastrointestinal tract. Between viruses and bacteria that have been implicated as triggers of GBS, the most frequent are: Enteroviruses, herpes family viruses, Hepatitis A, B and C, HIV, Influenza, Measles,Brucella, Campylobacter, Listeria, Mycoplasma, Salmonella, Shigella and Yersinia. Been associated with GBS vaccines:rabies, meningococcal, anti Influenza, Sabin and others.

Conclusion

The temporal relationship and the absence of other etiologies suggest that hepatitis B vaccination may have been the triggering event of GBS. In a review of the literature, 20 cases of GBS associated with the HBV vaccine have been described Neurological adverse effects are a very rare occurrence. At the base of Reporting System Vaccine Adverse Events, 101 cases of GBS following vaccination for HBV, are recorded until 2003.

Bibliography:

1- A case-series of adverse events, positive re-challenge of symptoms, and events in identical twins following hepatitis B vaccination: analysis of the Vaccine Adverse Event Reporting System (VAERS) database and literature review.
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2- Guillain-Barré syndrome following hepatitis B vaccination.
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