#Rabies #Vaccine

#AntiRabies

#vaccineinjuries

Delirious states following Anti-Rabies vaccination

There are studies that confirm the vaccine may cause central nervous system disease <a href="https://www.researchgate.net/publication/263277965">https://www.researchgate.net/publication/263277965</a> Delirious states following Anti-Rabies vaccination

#### Abstract

Introduction: Despite the presence of evidences of unhazardous of human diploid cell rabies vaccine (HDCV) but there are studies that confirm the vaccine may cause central nervous system disease. In Iran, so far no report has been published to confirm any specific psychiatric seguel or behavioral abnormality subsequent to Anti-rables vaccine administration. The current study intended to report this complication. Case report: Almost about four hours following vaccine injection in a 17-year female student, her consciousness level fluctuated and she was not able to identify people around her. In fact, the patient revealed disorientation as well as severe statue of fear and anxiety and stupor. Discussion: This study represents the first report of new and unusual information about a vaccinated person against rabies in Iran who revealed disorientation, severe statue of fear, anxiety, and stupor. The neurological complications of the vaccine following one of a series of vaccinations in the two latter reports in the literature were rather similar to the patient symptoms in the current research. However, the vaccine types that were used in the have been types of nervous tissue vaccine and duck embryo vaccine while the current vaccine in Iran is HDCV. Conclusion: Our findings show the need to promote awareness and training the paramedical staff about the potential adverse effects of rabies vaccines. Also, the continuous information and vital research is necessary for correct management practices of such patients

Rabies vaccines containing neural elements of animals are associated with neurological complications like encephalitis, encephalomyelitis, myeloradiculitis and polyradiculitis. <a href="https://www.indianpediatrics.net/feb2003/feb-150-154.htm">https://www.indianpediatrics.net/feb2003/feb-150-154.htm</a>

Developing countries continue to use the neural tissue rabies vaccines despite the high frequency of serious neurological complica-tions such as encephalitis, encephalomyelitis, myeloradiculitis and polyradiculitis(1-4). The frequency of neurological complications following anti-rabies vaccines varies from 1 in 600 to 1 in 1575 vaccinations(2).

The pathogenesis involves demyelination occurring due to an autoimmune reaction against myelin, triggered by the vaccine(1,2). All of our cases demonstrated lesions of demyelination in various parts of the nervous system. They had received neural tissue rabies vaccine. It is interesting to note that Case 1 had received one dose of neural tissue rabies vaccine and four doses of the chick embryo cell culture vaccine.

CNS demyelination associated with diploid cell rabies vaccine

https://www.sciencedirect.com/science/article/pii/014067369091231X

## CNS demyelination associated with diploid cell rabies vaccine

SIR,—Since the human diploid cell rabies vaccine (HDCV) was introduced in 1980 there have been three reports of neuroparalytic illness associated with it.<sup>1-3</sup> These neurological deficits were restricted to the peripheral nervous system and presented as a Guillain-Barré-like illness.

A 25-year-old veterinarian received the first two intramuscular injections of 1 ml HDCV for pre-exposure immunisation on July 19 and Aug 3, 1987 (Mérieux lot no Z 0108, expiry date Feb 8, 1988). On Aug 11 she noted weakness in her right leg, followed by clumsiness with her right hand. She had had a brief shaking chill before the onset of symptoms. Neurological examination revealed mild weakness of the right arm, hand, and leg with right-arm and patellar hyperreflexia, and an equivocal plantar extensor response on the right. No cranial nerve, cerebellar, or sensory deficits were detected. A computerised tomographic (CT) scan was normal but a single dose, non-delayed contrast CT study revealed a small focus of enhancement near the anterior horn of the left lateral ventricle, and magnetic resonance imaging (MRI) indicated increased signal intensity in the periventricular regions bilaterally. Cerebrospinal fluid examination demonstrated: total protein 21.4 mg/dl with four oligoclonal bands, IgG/albumin ratio 0.545 (0.47 in serum), IgG index 1·1 (normal below 0·66), cultures negative for bacteria and fungi, myelin basic protein 1·1 ng/dl (normal). Her serum rabies antibody titre was above 0·5 IU/ml. Evoked responses were normal. Serum protein electrophoresis revealed a polyclonal increase in IgG (1800 mg/dl).

### Adverse Reactions to Duck Embryo Rabies Vaccine

https://jamanetwork.com/journals/jama/article-abstract/340344

#### **Abstract**

Local cutaneous reactions and diffuse neurological dysfunction occurred in a patient during immunization with duck embryo rabies vaccine. Attempts to isolate an infectious agent were not successful, and it was concluded that the illness was the result of an immunologic reaction to the vaccine. The patient recovered without specific

Neurological disease in man following administration of suckling mouse brain #antirabies vaccine

pubmed.ncbi.nlm.nih.gov/4339746/

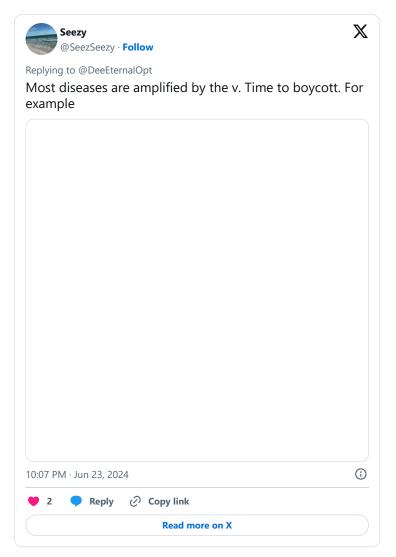
### Abstract

In Latin America, suckling mouse brain (SMB) vaccine has become the most commonly used vaccine for immunization of both man and animals against rabies. This vaccine is highly immunogenic, is relatively economical and easy to produce, and is believed to be free of the immunoencephalitogenic factor. From 1964 to the end of 1969, there were 40 reported cases of neurological disease following administration of SMB vaccine, 32 of which met the criteria for inclusion in this report. These 32 cases occurred in 8 different countries. In contrast to neurological disease following the administration of other types of nervous tissue vaccine, the majority of the cases following vaccination with SMB vaccine had a Guillain-Barré-type syndrome with peripheral nervous system involvement and a higher case-fatality rate. The causative agent has not been demonstrated. Modifications in the production and handling of the vaccine may be producing changes that are responsible.

The rabies early death phenomenon: A report of ineffective administration of rabies vaccine during symptomatic disease.

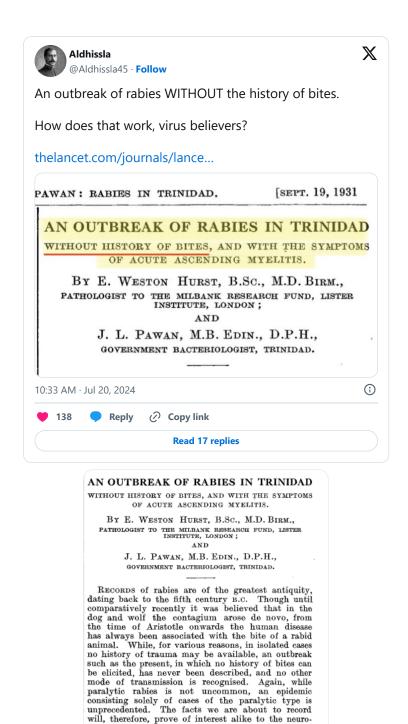
It was reported that in some individuals who received postexposure rabies vaccine, clinical features of rabies developed at the shorter time compared to individuals who were exposed, but not received the vaccine

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4502497



An outbreak of rabies WITHOUT the history of bites

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(01)07332-9/fulltext



Rabies surveillance in the United States during 2019 - No human rabies cases were reported in 2019.

logist, the epidemiologist, and the student of filterable

pubmed.ncbi.nlm.nih.gov/33978439/

Guillain-Barre syndrome occurring after rabies vaccination <a href="mailto:pubmed.ncbi.nlm.nih.gov/15813639/">pubmed.ncbi.nlm.nih.gov/15813639/</a>

Pasteur's Work on Rabies: Reexamining the Ethical Issues

There is a high degree of uncertainty in the correlation between animal bites and the subsequent appearance of rabies - even when the animal is certifiably rabid. The threat of death from the bite of a rabid animal is vastly less.

https://www.jstor.org/stable/3560403#:~:text=If%20rabies%20vaccination%20is%20there

fore,it%20unlike%20ordinary%20therapeutic%20measures.&text=can%20therefore%20never%20be%20sure,him%20or%20to%20anyone%20else.&text=well%20say%20that%20this%20is%20a%20more%20ethical%20way

X

A SCIENTIST'S DILEMMA IN HISTORICAL PERSPECTIVE -

### Pasteur's Work On Rabies: Reexamining the Ethical Issues

by GERALD L. GEISON

uite suddenly, in recent months, molecular biologists have begun to ask me whether Pasteur's microbial research ever aroused public opposition. In asking the question, they have betrayed their hope that I might be able to support of recombinant DNA research. In response, I have told them what I know about the opposition to Pasteur's work and have then tried to insist that this historical information is of dubious relevance to the current debate over recombinant DNA. For one thing, of course, there are important technical differences between the new gene-splicing experiments and Pasteur's relatively modest efforts to manipulate existing microorganisms.\(^1\) More important, for the historian at least, there are also profound differences between the intellectual, social, and ethical climate of Pasteur's day and our own. Here as elsewhere, the attempt to construct historical parallels—whether for the sake of molecular biology or for the sake of ongoing ethical discussion—is a delicate and risky business. Historical analogies, improperly contained and controlled, can become a sort of "ethicohazard" for us all.

Indeed, if historical research is to have any utility for

Indeed, if historical research is to have any utility for chical discussion, it will surely come only from efforts to clarify the moral issues in concrete, specific, and (in some respects) unique situations in the past. Ethical analysis, I submit, must be specific nor only to the substance of a situation but also to its historical context. That point will be illustrated here through a brief examination of Pasteur's work on rabies in its historical context. At the outset, however, it is crucial to distinguish between the chical issuer assed by the nature of rabies itself and those raised by Pasteur's particular effort to treat it. For rabies, by its very nature, poses several chical questions that have always been recognized—if not always explicitly articulated—and that apply to any attempt to treat it. Taken as a whole, the special features of rabies make it unlike any other disease on earth, and ethical postures appropriate to jet.

#### Ethical Issues Specific to Rabies

Rabies has always been rare in man. It probably never

GERALD L. GEISON, Ph.D., is associate professor of history at Princeton University. This is a revised version of a paper delivered at the conference, "Ethics and Sensibility in the History of Science and Medicine," at The Hastings Center, February 24-26, 1977. The conference was supported by a grant from the Rockefeller Foundation.

claimed more than a hundred victims in any year in France, and French estimates for the years immediately preceding Pasteur's famous work indicate an annual mortality of considerably less than fifty. In addition, rabies is not an infectious disease in the usual sense; it is not transmitted from man to man. Because of these two features, general or compulsory vaccination has never seemed appropriate with respect to rabies. The potential social benefit has never seemed sufficient to justify the sort of intrusion on individual rights represented by compulsory vaccination against smallpox, for example.

Yet, despite its rarity, rabies has long been considered

Yet, despite its rarity, rabies has long been considered an especially mysterious and horrible disease. Its usual agent is man's best friend. Its human victims are all too often children. Its symptoms are presumed to embody the ultimate in physical and mental degradation, stripping victims of their sanity and reducing them to quivering, convulsive, animal-like shadows of their former selves. Most important by far, rabies is almost invariably fatal once the symptoms become manifest. Before Pasteur's treatment became available, fear of death from rabies aroused profound dread in any victim of an animal bite. That fear also promoted voluntary submission to any reasonably safe and potentially beneficial treatment—even one so excruciating as the traditional favorite, cauteriaztion by fire or acid. Pasteur had no need to seek our "subjects" for his treatment; they came willingly, even imploringly, to him. In such a context, the concern about "informed and understanding consent" surely loses some of its force. Since the appearance of Pasteur's treatment, not so incidentally, the near-certain fatality of manifest rabies has rendered clinical trails impossible.

had no need to seek out "subjects" for his treatment; they came willingly, even imploringly, to him. In such a context, the concern about "informed and understanding consent" surely loses some of its force. Since the appearance of Pasteur's treatment, not so incidentally, the near-certain fatality of manifest rabies has rendered clinical trials impossible.\(^1\)

An even more peculiar feature of rabies is its long incubation period in the absence of detectable symptoms. No other lethal disease of rapid clinical course even approaches rabies for length of incubation—usually six to eight weeks, but sometimes a year or more.\(^1\) This feature of rabies opened the possibility of a treatment that might be applied after the disease had (presumably) been contracted but before the symptoms became manifest. This is, of course, the hallmark of Pasteur's rabies "vaccine" and of all succeeding treatments for the disease.

the hallmark of Pasteur's rabies "vaccine" and of all succeding treatments for the disease.

Unfortunately for Pasteur and his successors, there is a very high degree of uncertainty in the correlation between animal bites and the subsequent appearance of rabies even when the biting animal is certifiably rabid. While the mortality of clinical rabies is virtually 100 percent, the threat of death from the bite of a rabid animal is vastlyless. The risk depends on several factors, including the species of attacking animal (wolf and cat bites, for example, pose a much higher risk than dog bites), the location

Heetings Center Report, April 1971

Possible Interactions Between Rabies Vaccination and a Progressive Degenerative CNS Disease.

Four years after vaccination, symptoms of a slowly progressive CNS disease developed, characterized initially by visual disturbances and dementia, followed by ataxia, abnormal involuntary movements, and a profound short-term memory loss after 19 years of age <a href="https://jamanetwork.com/journals/jamaneurology/article-abstract/576931">https://jamanetwork.com/journals/jamaneurology/article-abstract/576931</a>

## Possible Interactions Between Rabies Vaccination and a Progressive Degenerative CNS Disease

D. E. Britton, MD; S. A. Houff, MD; R. M. Eiben, MD

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Arch Neurol. 1978;35(10):693. doi:10.1001/archneur.1978.00500340069015



#### Abstract

**To the Editor.**— The similarities between postvaccinal encephalomyelitis and the progressive form of multiple sclerosis have been described. <sup>1-3</sup> The following case illustrates the difficulties in separating these entities on clinical and laboratory grounds. A history of rabies vaccination four years prior to the onset of neurologic symptoms provides the interest for this letter.

**Report ofa Case.**— A 24-year-old man had been bitten by a rabid cat at age 10 years and received 14 intra-abdominal injections of Semple vaccine, starting two days after the bite. No reactions to the vaccine were noted. It is not known whether the patient received equine serum immune globulin. Four years later, symptoms of a slowly progressive CNS disease developed, characterized initially by visual disturbances and dementia, followed by ataxia, abnormal involuntary movements, and a profound short-term memory loss after 19 years of age.

Emergence of rabies among vaccinated humans in India: a public health concern The National Rabies Control Program reported 6644 clinically "suspected" cases and deaths of human rabies between 2012 and 2022. . Deaths due to rabies among vaccinated and unvaccinated individuals have caused great public concern.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10305982/

A 14-year-old male, was admitted to Tata Main Hospital with complaints of pain abdomen and 6 to 7 episodes of vomiting followed by altered sensorium within 24 hours prior of admission. He also had one episode of generalized tonic- clonic convulsion on the way to hospital. He gave a history of dog bite two weeks before his admission and had received three doses of anti-rabies vaccine

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6857399/

Twenty-one cases of neuroparalytic accidents of rabies vaccination (with suckling mouse brain vaccine), 11 of them fatal, were observed, occurring predominantly in men; the mean age of the patients was 29 years.

pubmed.ncbi.nlm.nih.gov/911231/

## Neuroparalytic accidents of antirabies vaccination with suckling mouse brain vaccine. Clinical and pathologic study of 21 cases

G Toro, I Vergara, G Román

PMID: 911231 DOI: 10.1001/archneur.1977.00500230064011

#### Abstract

Twenty-one cases of neuroparalytic accidents of rabies vaccination (with suckling mouse brain vaccine), 11 of them fatal, were observed, occurring predominantly in men; the mean age of the patients was 29 years. On the average, 13 doses of the vaccine were used. Only three patients received less than seven doses. The mean latent period was 14 days (range, 4 to 24 days). In 16 patients (76%), a Guillain-Barré syndrome occurred that was moderate in three, severe in seven, and fatal in six. Pathologically, this was shown to be a typical polyradiculoneuritis. Five patients had fatal involvement of the central nervous system. Three had an acute disseminated perivenous leukoencephalopathy, with concurrent rabies encephalitis in one case. One patient had a perivenous myeloradiculopathy and one a chronic encephalomyelopathy of six years' duration with demyelinating plaques in the periventricular white matter, cerebellum, and spinal cord. Since the reduction of postexposure rabies vaccination to seven doses, no new cases have been observed in Colombia.

#NewYork The threat of hydrophobia in 1872 caused the Health Department to begin a drive against strays. However Dr. C. A. Leale, who served as physician for several New York institutions for sick children, declared in 1887 that he saw 18,000 to 20,000 children annually, and although several hundred had been bitten by mad dogs, he had yet to see a case of hydrophobia.

https://www.russellsage.org/sites/default/files/History-Public-Health.pdf

News of Pasteur's discovery of a treatment for potential rabies cases aroused a great deal of interest. After six children in Newark were bitten by a mad dog late in 1885, four of them, along with several physicians anxious to study Pasteur's prophylactic, sailed for Paris. As might be expected, Pasteur's claims were derided by the more conservative physicians. Dr. C. A. Leale, who served as physician for several New York institutions for sick children, declared in 1887 that he saw 18,000 to 20,000 children annually, and although several hundred had been bitten by mad dogs, he had yet to see a case of hydrophobia. The Pasteur treatment would only frighten dog-bite victims, and he hoped the profes-

How Can We Prevent False Hydrophobia?

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9282216/?page=2

the outset, as then, my aim in the body of the paper  $\,$  may appear more clear :—

- I. There is, at present, no proven epidemic of hydrophobia either in New York city or in its vicinity.
- II. A number of deaths have occured from spurious hydrophobia, (lyssophobia), in New York city and its vicinity, during the past nine months.
- III. The agitation of the subject of Pasteur's method of preventive inoculation, for hydrophobia, and the accompanying strained accounts of suffering and death from that disease, are responsible for these deaths.
- IV. To prevent the serious and oft-times fatal imaginary disease, it is necessary to inculcate a healthy public sentiment, which shall frown down the agitation of questions, which are of a strictly scientific character, by persons who are neither biologists nor physicians, and who have no other motive than the creation of a sensation, regardless of consequences.
- V. It should be strictly inculcated on all officers entrusted with the preservation of the public peace and public health, that the only way to determine whether a dog is suffering from rabies or no, is to submit him to inspection by competent veterinarians in a living condition. The desirability of some such ordinance is attested by the fact that persons on the road to death from hydrophobia, have recovered on learning that the dog who bit them remained alive and well.
- VI. The results of researches on hydrophobia, should, for the present, remain within the domain of technical literature. There are so many problems connected with the question of rabies, which are as yet, and promise to remain for some time, unsettled, that it would be tantamount to criminal recklessness to publish prematurely alarming discoveries in the lay press.
- VII. The method of demonstrating rabies by direct inoculation of the brain is fallacious: The conclusion drawn by Liautard, from an experiment thus performed, that the Riverdale dog was mad, was obtained by misleading methods.
- VIII. The means to be adopted to prevent future outbreaks of spurious hydrophobia, is to muzzle the dogs, to dam up the torrents of ink flowing from the pens of hasty investigators within appropriate receptacles, and to exclude sensational publications from the household.

A high rate of neurological complications following Semple anti-rabies vaccine <a href="https://pubmed.ncbi.nlm.nih.gov/2906768/">pubmed.ncbi.nlm.nih.gov/2906768/</a>

## A high rate of neurological complications following Semple anti-rabies vaccine

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Affiliations + expand

PMID: 2906768 DOI: 10.1016/0035-9203(88)90167-8

#### **Abstract**

A fatal case of encephalitis due to Semple (phenolized sheep-brain) anti-rabies vaccine prompted a search for neurological complications among 722 recipients of 2 vaccine batches administered in Bangkok, Thailand in June and July 1984. A review of all patients admitted with neurological symptoms from June through August 1984 to the 5 major teaching hospitals in Bangkok found 6 cases (0.83%), including the index case, who had received the vaccine. Rabies infection was ruled out in all 6 cases. 4 patients had meningitis, and 2 had meningo-encephalitis. Only the index case was fatal; the other patients recovered without neurological sequelae. The rate of neurological complications after receiving Semple vaccine was therefore a minimum of 8.31 cases per 1000 persons vaccinated (1:120). This complication rate was about 25 times higher than the overall complication rate of 0.33 per 1000 (1:3018) determined from 14 previous reports. The fatality rate was 1.39 per 1000 (1:722), about 15 times higher than the rate of 0.09 per 1000 (1:10805) calculated from the previous studies. It is urgent to find economically feasible alternatives to Semple vaccine.

#### Acute flaccid paralysis due to rabies vaccine

Paralytic rabies is more common in persons who have received postexposure vaccination. Paralytic rabies occurring after postexposure antirabies vaccination creates a diagnostic dilemma as vaccine-induced GBS becomes a distinct

possibility.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3162835/

#### Case 1

A ten year-old boy presented with sudden weakness of both lower limbs for two days. He also had a history of fever, vomiting, and back pain for three days. His past history elicited an incident of an unprovoked bite by a street dog in his right hand (grade III) three weeks back. Four doses of purified chick embryo cell (PCEC) antirabies vaccine were administered according to schedule in the deltoid, starting from the day of the bite.

Rabies immunoglobulin (RIG) was not given. The patient had complained of back pain, but there was no typical history of pain, tingling, numbness at the site of the bite, hydrophobia, or behavioral changes. Clinical examination revealed a febrile, alert, and conscious child. His temperature was  $39.5^{\circ}$ C, pulse rate was 110/min, blood pressure 100/70 mm Hg, respiratory rate 30/min, and  $SPO_2$  96%. Neurological examination detected grossly reduced muscle tone and power (lower limb 2/5, upper limb 3/5) with areflexia (both superficial and deep tendon reflexes were absent) in all four limbs and the trunk along with urinary incontinence. There were no features of sensory or cranial

#### Case 2

A six year-old girl presented with sudden onset of quadriparesis for one day, preceded by fever, myalgia, and vomiting for four days. There was also a history of a dog bite in her right upper arm (Grade III bite) three weeks back.

The child was given the PCEC vaccine as per schedule in the deltoid and received a total of four doses before the development of any symptoms. In that case also RIG was not given though it was indicated. The patient was treated conservatively, but the clinical features and the progression of disease was similar to the first case, except for the presence of myoedema, a striking feature of rabies. [1,4] In spite of good supportive measures, she expired on the 12<sup>th</sup> day of disease onset.

Peripheral facial paralysis and post-antirabies-vaccination polyneuroradiculitis <a href="https://pubmed.ncbi.nlm.nih.gov/716833/">pubmed.ncbi.nlm.nih.gov/716833/</a>

## [Peripheral facial paralysis and post-antirabiesvaccination polyneuroradiculitis (author's transl)]

[Article in French]
G Crémieux, J F Dor, M Mongin

PMID: 716833

#### **Abstract**

A case of facial diplegia with albuminocytologic dissociation of cerebrospinal fluid after antirabies vaccination prompts the author to attempt a retrospective study of post-antirabies-vaccination neuropathies, with facial or extensive involvement. Fifty-seven cases are considered. Irrespective of vaccine type, certain clinical similarities emerge, notably the age of occurrence (adult), the early onset of the paralysis (during vaccine therapy or in the following week), and the prognosis (good survival rate, severity of functional impairment varying with extent of involvement). The author attributes the main pathogenic role to the peripheral myelinic basic protein contained in varying proportions in conventional vaccines, the corollary being that such accidents should disappear completely with the new vaccination based on tissue culture material. A therapy programme comprising the discontinuation of vaccine therapy and administration of corticoids is proposed.

There are many other conditions that can cause the exact same symptoms as supposed Rabies - here is the case of Acute Brachial Neuritis and Guillain-Barré Syndrome that was labelled as "Rabies"

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3347913/

Published online 2012 Apr 30. doi: 10.4137/CCRep.S9318

PMCID: PMC33479 PMID: 225772

Human Rabies with Initial Manifestations that Mimic Acute Brachial Neuritis and Guillain-Barré Syndrome

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Abstract Go to:

#### Introduction

Human rabies can be overlooked in places where this disease is now rare. Its diagnosis is further confused by a negative history of exposure (cryptogenic rabies), by a Guillain-Barré syndrome (GBS) type of presentation, or by symptoms indicating another diagnosis, eg. acute brachial neuritis (ABN).

#### Case presentation

A 19-year-old Mexican, with no past health problems, presented with a two-day history of left shoulder, arm, and chest pain. He arrived in Louisiana from Mexico five days prior to admission. O particular importance is the absence of a history of rabies exposure and immunization. On admission, the patient had quadriparesis, areflexia, and elevated protein in the cerebrospinal fluid prompting a diagnosis of GBS. However, emerging neurological deficits pointed towards acute encephalitis. Rabies was suspected on hospital day 11 after common causes of encephalitis (eg, arboviruses) have been excluded. The patient tested positive for rabies IgM and IgG. He died 17 days after admission. Negri bodies were detected in the patient's brain and rabies virus antigen typing identified the vampire bat as the source of infection.

#### Conclusion

Conversion Disorder Presenting as Pseudohydrophobia

An eight-year girl was diagnosed with Rabies however a child psychiatric evaluation revealed that the case was of a Conversion Disorder.

Also Pseudorabies or pseudohydrophobia, where the person after an animal bite behaves as if he is afflicted with rabies, is well documented.

https://www.indianpediatrics.net/dec2004/1284.pdf

LETTERS TO THE EDITOR

There was history of being bitten by a cat one month back and the cat died, few days after the incident.

A provisional diagnosis of rabies was made and the girl was given supportive treatment. Two days later, she improved dramatically and the symptoms disappeared completely. A child psychiatric evaluation revealed the following facts. She belonged to a lower socio-economic class family, consisting of her parents and two brothers. Her developmental mile-stones were normal. Her maternal aunt had some chronic psychiatric illness. There used to be frequent quarrels between the siblings and she had the feeling that her parents gave more attention to the brothers. She had normal intelligence. Her academic functioning was above average. She was well adjusted at school. The girl had a sensitive temperament. On the particular day she had a quarrel with her younger brother at school. She was insulted by him when she developed fainting episode. While friends and teachers were attending to her, the brother expressed aloud, that he was not bothered even if his sister died. This precipitated the bizarre movements.

Corneal impression smears for rabies antigen and serological tests for antirabies antibodies (done from Pasteur Institute, Coonore) were negative. So a retrospective diagnosis of conversion disorder was made.

Conversion disorders are closely associated, in time, with traumatic events, or disturbed relationships. The term conversion implies that the unpleasant affect caused by the conflicts that the individual cannot solve is transformed into the symptoms(1). Several studies have documented a close association between psychosocial stress and conversion disorder and sibling rivalry is reported to be one of the factors involved(2.3).

Pseudorabies or pseudohydrophobia, where the person after an animal bite behaves as if he is afflicted with rabies, is well documented in literature and is one of the most important differential diagnoses of rabies(4). The psychodynamics of the present case is different. Here the child had a painful experience, which was traumatizing to her ego, and this precipitated the conversion symptoms. Development of the symptoms helped to reduce the psychological distress and anxiety resulting from the conflict (primary gain). It also helped to gain more attention from the parents and teachers and classmates (secondary gain). Abrupt onset of the symptoms, association with stress, dramatic recovery and the presence of primary and secondary gains are all characteristic features of conversion disorder.

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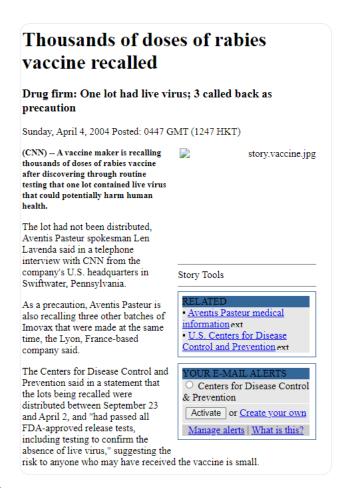
#### Gelastic epilepsy possibly following antirabies vaccine

pubmed.ncbi.nlm.nih.gov/11227123/

#replug

2004: Thousands of doses of rabies vaccine recalled

https://edition.cnn.com/2004/HEALTH/04/03/vaccine.recall/index.htm



#### #Replug 2008:

After Liu Yan's four-year-old son, Liu Yi, was bitten by a dog, he took his child to the hospital for a vaccination. Two weeks later, after the fourth injection, Liu Yi became violently ill.

The next morning, on Aug. 27, 2008, the boy was diagnosed with viral meningitis. His condition quickly deteriorated and he died later that afternoon

The expose said that improperly stored vaccines administered by the provincial Centre for Disease Control and Prevention (CDC) for encephalitis, hepatitis B and rabies between 2006 and 2008 had killed four children and made more than 70 others ill.

https://www.globalissues.org/news/2010/04/05/5104

# HEALTH-CHINA: Wave of Anger Rises Over Vaccine Scandal

by Mitch Moxley (Beijing) Monday, April 05, 2010 Inter Press Service

Shortly after Liu Yan's four-year-old son, Liu Yi, was bitten by a dog, he did what any responsible parent would do: took his child to the hospital for a vaccination. Two weeks later, after the fourth injection, Liu Yi became violently ill.

The next morning, on Aug. 27, 2008, the boy was taken to First People's Hospital in Yangquan city in central China's Shanxi province, where he was diagnosed with viral meningitis. Liu Yi's condition quickly deteriorated and he died later that afternoon.

Liu Yan blamed the rabies vaccination for his son's death, and according to a searing media report last month, he might not be alone.

'My son was in good health before he got the rabies vaccine,' Liu Yan told IPS. 'Nobody could clarify why my child got sick.'

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