



**After 40 Years without Grand Mal Epilepsy Attacks and Despite Regular use of Antiepileptic Drugs, the Patient with a Comatose Attack Suddenly**

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### **An incredible report**

After 40 years without grand mal epilepsy attacks and despite regular use of antiepileptic drugs, the patient with a comatose attack suddenly..

### **A simple event**

It was very new and strange to me that, after several decades of working with neuropsychological patients, and of course visiting and monitoring them, the patient, after 40 years of not having a grand mal seizure, suddenly had such a severe attack that, in a comatose state, the patient was taken to the ward. He is taken to the emergency room of the hospital. This incident happens while he is asleep and in the middle of the night. The patient wakes up with a state of suffocation and excitement and then goes into a deep coma. He was transferred and after four hours in the hospital, while he was under the monitor, when he opened his eyes, he asked his companions who were impatiently worried about his condition.

where is here ? where am I? What am I doing here? Isn't it dinner time and .....

The fact is that when I encountered this 65-year-old man in that critical state, it was absolutely unbelievable for me that it was a grand mal epileptic attack. Especially the fact that he was almost 40 years attack-free. In this long time, he didn't even have brief moments of Aura . Of course, during this period, this patient has been under medical treatment with 500 mg Valproic Acid tablets twice a day. He was admitted to Nene Teresa Hospital No. 5, and after initial examinations, he came out of coma and was able to talk to the people around him and the medical staff. While no one knew how this problem happened. He only knew that he was taken to the hospital. Later, in the neurology department, a brain scan was taken from him, and it was determined that this was a recurrence of Grand Mal's epilepsy, which happened after four decades! . A very rare and important event. Then with E.E.G was performed,

We could not determine the reason for the recurrence of this attack. Especially me, who had known the patient for many years. Not a new concussion, not an acute infection, not even a history of chronic covid 19 not a nervous crisis, not sleep disorders, not psychotic crises, not intense physical activity, not metabolic changes, not using a new drug and... none of them. They could not justify the cause of the new attack, with such severity that it would put him in a coma for four hours.

This attack still remains in an aura of uncertainty and question for me and my colleagues. When I faced

this rare case, I decided to prepare it as a report and experience and make it available to my colleagues.



Figure 1

### **What basic information do we have about epilepsy?**

We have the following details about grand mal epilepsy:

- According to the World Health Organization (WHO) it is estimated that up to 70% of people with Grand Mal epilepsy will live without seizures if diagnosed and treated properly.
- The risk of premature death in people with grand mal epilepsy is three times higher than in the general population.
- Grand mal epilepsy accounts for a significant part of the disease burden in the world and affects about 50 million people worldwide.
- Approximately 2.2 million Americans live with grand mal epilepsy.

- Grand mal epilepsy is the fourth most common disease in the world, which is included in the classification of brain and nerve diseases.

### **Experience working with epileptic patients**

My personal experience in working with grand mal epilepsy patients is that, when patients' seizures are controlled by drug therapy, they often wonder when they will be free from taking anti-epileptic pills, and always when they are free for a while. They are attacked, they want their doctor to stop the medicine. And this is an endless story of all epilepsy in all countries.

I never, at any time, even if I wanted to stop taking anti-epileptics, I would not do it suddenly and all at once I believed that the low tapering method should be used and I still believe that.

### **Categories of Seizures**

Dr. Jacqueline French, a neurologist and epilepsy specialist at NYU Langone Medical Center in New York say ,:

Epilepsy in four hands Main Classification may be

- epilepsy Ideopathic or primary which is not associated with other neurological diseases and has no known cause except genetic basis. Statistically, these epilepsies include the least number of epilepsies
- Acquired (or secondary) epilepsy can be caused by complications during pregnancy, traumatic brain injury, stroke, tumors and diseases of the brain and nerves , including infections .

In both cases, epilepsy symptoms occur because normal signaling between nerve cells and the brain is disrupted, possibly due to an abnormality in the brain's wiring or an imbalance of nerve signaling chemicals called neurotransmitters, or a combination of the two. According to D. French, sometimes epilepsy is started several years after damage to the brain Researchers tried to find a way to diagnose before seizures attacks. But all of them has been failed. While the main symptom of epilepsy is seizures, having seizures does not necessarily mean having grand mal epilepsy.

### **Risk factors:**

The known risk factors for grand mal epilepsy are:

- Severe head injury, especially direct trauma
- Previous cerebral stroke.
- Brain parenchymal hemorrhages
- The presence of space-occupying lesions in the brain such as cysts or tumors
- High fevers in children
- Complications during childbirth or difficult childbirth

### **Reduce or stop medication?**

Usually, patients who do not have an attack for more than three years of drug treatment, it is a well-known method to decide to reduce the drug dose and stop the drug after six months.

I always advised my patients, even if you don't have any problems after stopping the medicine, to inform me with a short SMS so that we don't face the new side effects of stopping the medicine suddenly.

This encouraged the patients to be fully sensitive to this issue. I remember well that one of my neurologist colleagues in Iraq said:

I(meaning him) face the patient's request to stop the medicine. Because the patient said that he has not had an epileptic attack for more than four years. For this reason, the patient insisted that I stop his medication. This was done and the patient even got his driver's license back from the police.

But it didn't take long to cost him his life. The story was that on the free way where I was driving, I noticed a car accident in my hundred. I saw all the untimely movements of the car and it was strange to me that the driver of the car kept pulling to the right and left and finally entered the free way with another A car carrying drinking water crashed. When I reached the car that had crashed, I recognized my patient in complete disbelief and became certain that the cause of the car crash was due to the epileptic seizure of the driver.

### **The project of reducing or discontinuing drugs for epilepsy patients:**

It was in early April 2023 that some of my epileptic patients, whose epileptic causes were secondary to direct or indirect traumas and were under drug treatment and did not have an attack, had sporadically requested me to stop using drugs for them. I will check and if I agree, I will stop their anti-epileptic treatments

With this idea, considering that these patients had not had an attack for many years and I had a complete knowledge of them, I first agreed to investigate the issue. The total number of these patients was 29 and their age group was between 43 and 76 years old. All of them were male cases.

### **Motivation for working on the drug adjustment project for epilepsy patients**

My main motivation for working on this project was:

- Some of these patients had elevated liver enzymes due to the use of anti-epileptic drugs. Despite expert investigations to find the cause of elevated liver enzymes, we did not reach a diagnosis other than that it may be a drug complication.
- The cause of their epilepsy was almost secondary epilepsy caused by traumas recorded several years ago.

we also had cases, for example, while driving and crossing the railway tracks in West Germany, he collided with a train and was in a coma for several days, and then gradually returned to normal

The same patient who was facing multiple attacks in the past years and his condition was not controlled even with a single drug and was treated with carbamazepine and valproic acid, now says: I have not had an attack for more than two years. So why should I take medicine?

And he stopped his medicine without consulting any doctor.

- In these reviews, we did not primarily focus on children and focused on adults who had been treated with antiepileptic drugs for many years

We know that epilepsy types, approximately two-thirds of patients react to any type of medication, while one-third of patients are drug-resistant. Many forms of drug-resistant epilepsy occur in children. In the control mother of epilepsy patients, we did not find any cases that show resistance to drugs or drugs. More than 90% of these patients had their epilepsy controlled with one drug and about 10% with two drugs

In the patients that we have monitored, it has been found that 17% have stopped taking their medications by themselves for more than two years without consulting any doctor and have been free of any attacks in these two years.

**The main drugs used by our patients include the following:**

- Nearly 47% of patients have used carbamazepine tabs to treat their disease. The medicinal dose is between 400 and 800 mg daily in two or three times tablet
- Levetiracetam tabs have used % 17 by the patient's have used. Of course, it is a new drug and the doses used by these patients range from 500 mg to 1 gram per day in two doses.
- Valproic acid tablets, almost 14% of patients have been treated with this medicine. The therapeutic doses of this drug are reported to be 500 to 750 mg in two doses.
- About 7% of patients were treated with Apixaban tablets
- Also, 7% of patients used two drugs.

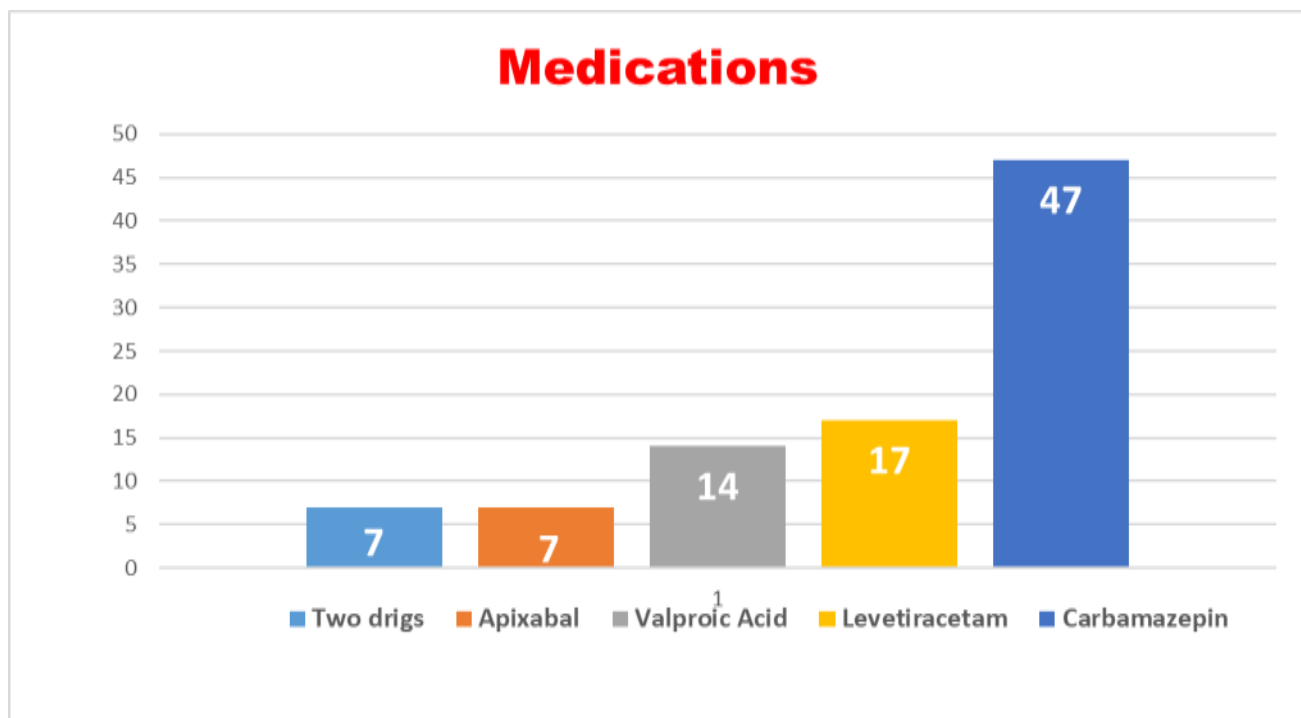


Figure 2

In our investigations, we did not find any case that showed resistance to a specific drug treatment.

Also, we did not receive any reports of allergy or intolerance to antiepileptic drugs in these patients

### **Somestrong studies about**

- In adults, there are two studies in which seizure - free patients were randomized They were divided into those who decided to continue the treatment.
- A randomized controlled study of 1,013 patients who had been seizure -free for at least two years found that 41% relapsed two years after discontinuation, compared with 22 % in the group that shows continued treatment.
- A Norwegian randomized study included 160 patients who were treated with monotherapy for at least two years without seizures . They were randomly divided into stopping 79 people or continuing treatment 81 people . After 12 months 15 percent of those in the discontinuation group and 7 percent of those in the continuation group experienced a seizure recurrence.
- In an open-label follow-up study , 89 % of patients randomized to continue treatment chose to discontinue the drug . After 41 months, seizures had recurred in 27 percent of those who stopped treatment.
- A meta - analysis based on 25 observational studies reported seizure recurrence in 25% after one year and in 29% two years after discontinuation.
- An American guideline based on 17 observational studies resulted in a similar post - discontinuation rate of 31.2 % for children and 39.4 % for adults

### **Do the seizures come back?**

This is a big question. And this possibility is often what makes the decision whether to discontinue the Or not.

It is usually not an option for people with a type of epilepsy that rarely goes away , such as juvenile myoclonic epilepsy . When you stop taking the drug , relapse is almost certain.



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But approximately three quarters of people with epilepsy have a form that is far less predictable.

**Seizures are less likely to return if the patients have the following :**

- Free attacks for at least 2 to 5 years.
- Have only one type of seizure.
- E.E.G for at least 1 year is normal.

**Seizures are more likely to return if the patients have the following:**

- Chronic epilepsy
- Multiple or mixed epilepsy
- Failure to control seizures despite the use of antiepileptic drugs
- Attempts to stop in the past were unsuccessful
- Intelligence score less than 70
- Abnormal E.E.G since last year.
- Worsening of E.E.G in the absence of medication

**Final results:**

According to our case, after 40 years, despite the use of medication, Grandmal's epilepsy attacks returned even more severe than before. We are convinced that discontinuation of antiepileptic drugs is not practical for trauma patients. We also concluded that

- In epileptic patients with direct trauma, we should not negotiate at all.
- For those who want to test stopping the drug, use the low tapering method and continue this for a 3 months.
- Do not change the drugs that patients use, even their pharmaceutical companies.

- Patients who have psychological problems for any reason, in cooperation with the teams of our psychologist colleagues, let's work together on their treatments.
- In those whose cause of trauma, such as tumors or similar cases, has been eliminated, we can consider the continuation of treatment with our colleagues and examine the issue of reducing or stopping the medication.
- We still haven't been able to academically assess the relationship between chronic Covid epileptic attacks, that's why we keep this part of the work open for now to complete our information.

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Stopping Antiepileptic Drugs: When and Why?

John D. Hixson MD

Discontinuation of antiepileptic drugs in seizure-free patients – when and how?

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