

Supplementary Table 1. The source of the participants

	Healthy Controls	People with neuropsychiatric conditions	People with Epilepsy	Total
West China Hospital, Sichuan University	169	207	326	702
Henan Provincial People's Hospital	80	4	96	180
Chongqing University Three Gorges Hospital	24	6	69	99
Total	273	217	491	981

Supplementary Table 2. The diagnosis in participants with neuropsychiatric conditions

Diagnosis	Number
Anxiety	39
Dizziness	27
Headache	26
Depression	20
Paroxysmal kinesigenic dyskinesia	18
Peripheral Neuropathy	17
Sleep disorders	10
Neuroimmune disorder	9
Neuroinfectious diseases	8
Neurovascular	6
Neuromuscular disease	5
Other	32
Total	217

Supplementary document 3. The standard case report form in general visitors

Name		Gender	○Male ○Female
Tel		Date of birth	
Ethic	<input type="checkbox"/> Han <input type="checkbox"/> Minor ethics _____		
Research site name	<input type="checkbox"/> West China Hospital of Sichuan University		
	<input type="checkbox"/> Henan Provincial People's Hospital		
	<input type="checkbox"/> Chongqing University Three Gorges Hospital		
	<input type="checkbox"/> Other _____		
Diagnosis (if not yet diagnosed, fill in the blank with “none”)			
Current Medication	<input type="checkbox"/> None		
	<input type="checkbox"/> Glucocorticoid		
	<input type="checkbox"/> Immunosuppressant		
	<input type="checkbox"/> Anti-hypertensive drug		
	<input type="checkbox"/> Hypoglycemic drug		
	<input type="checkbox"/> Statins		
	<input type="checkbox"/> SSRI antidepressant		
	<input type="checkbox"/> Other _____		
Have you had any COVID-19 vaccine?	○Yes ○No	Willingness to be vaccinated (If not yet been vaccinated)	○Yes ○No
Do you have any of these listed Contraindications?	○Yes	<input type="checkbox"/> Allergy to any vaccine components	
		<input type="checkbox"/> Severe allergic reactions to previous vaccination	
		<input type="checkbox"/> Uncontrolled seizures or other severe neurological disease	
		<input type="checkbox"/> Fever, acute disorders, acute phase of chronic disease, uncontrolled severe chronic disease	
	<input type="checkbox"/> Pregnancy		
○No			
Why haven't you been vaccinated? (If not yet vaccinated)	<input type="checkbox"/> Uncontrolled disease		
	<input type="checkbox"/> Worries about the interaction between my current medication and vaccine		
	<input type="checkbox"/> Worries about potential adverse events of the vaccine		

	<input type="checkbox"/> In a second priority age group	
	<input type="checkbox"/> Contraindications	
	<input type="checkbox"/> Other _____	
In which province did you get the vaccination?		
History of febrile convulsion before the age of five?	<input type="radio"/> Yes <input type="radio"/> No	
What kind of vaccine did you receive?	<input type="checkbox"/> Inactivated vaccine from Sinopharm's Beijing institute	
	<input type="checkbox"/> Inactivated vaccine from Sinopharm's Wuhan institute	
	<input type="checkbox"/> Sinovac's CoronaVac	
	<input type="checkbox"/> Viral vector vaccine (CanSino)	
	<input type="checkbox"/> Protein subunit vaccine (Anhui Zhifei Longcom)	
	<input type="checkbox"/> Other _____	
Date of the first injection		
Were there any adverse events after the first injection?	<input type="radio"/> Yes	<input type="checkbox"/> A local injection site skin adverse event
		<input type="checkbox"/> Muscle pain
		<input type="checkbox"/> Fatigue
		<input type="checkbox"/> Fever, Peak temperature as
		<input type="checkbox"/> Headache
		<input type="checkbox"/> Drowsiness
		<input type="checkbox"/> Other _____
	<input type="radio"/> No	
Date of the second injection		
Were there any adverse events after the second injection?	<input type="radio"/> Yes	<input type="checkbox"/> A local injection site skin adverse events
		<input type="checkbox"/> Muscle pain
		<input type="checkbox"/> Fatigue
		<input type="checkbox"/> Fever, Peak temperature as
		<input type="checkbox"/> Headache
		<input type="checkbox"/> Drowsiness
		<input type="checkbox"/> Other _____

	<input type="radio"/> No	
Date of the third injection		
Were there any adverse events after the third injection?	<input type="radio"/> Yes	<input type="checkbox"/> A local injection site skin adverse event
		<input type="checkbox"/> Muscle pain
		<input type="checkbox"/> Fatigue
		<input type="checkbox"/> Fever, Peak temperature as
		<input type="checkbox"/> Headache
		<input type="checkbox"/> Drowsiness
		<input type="checkbox"/> Other _____
	<input type="radio"/> No	
Have you experienced any new onset of seizures since the vaccination?	<input type="radio"/> Yes, the date was _____	
	<input type="radio"/> No	

Supplementary document 4. The standard case report form in people with epilepsy

Name		Gender	<input type="radio"/> Male <input type="radio"/> Female
Tel		Date of birth	
Research site name	<input type="checkbox"/> West China Hospital of Sichuan University		
	<input type="checkbox"/> Henan Provincial People's Hospital		
	<input type="checkbox"/> Chongqing University Three Gorges Hospital		
	<input type="checkbox"/> Other_____		
Date of the epilepsy diagnosis	(For those who could not remember the exact date or month, the first day of the relevant month/year was used.)		
Seizure type	<input type="radio"/> Focal onset		
	<input type="radio"/> Generalized onset		
	<input type="radio"/> Unknown onset		
	<input type="radio"/> Unclassified		
Seizure frequency before the injection	<input type="radio"/> At least one attack per day		
	<input type="radio"/> At least one attack per week		
	<input type="radio"/> At least one attack per month		
	<input type="radio"/> At least one attack every 3 months		
	<input type="radio"/> At least one attack every 6 months		
	<input type="radio"/> Only one seizure in previous 12 months		
	<input type="radio"/> Seizure-free for more than a year		
Anti-seizure Medications (ASMs)	<input type="checkbox"/> Valproate		
	<input type="checkbox"/> Levetiracetam		
	<input type="checkbox"/> Oxcarbazepine		
	<input type="checkbox"/> Carbamazepine		
	<input type="checkbox"/> Topiramate		
	<input type="checkbox"/> Lamotrigine		
	<input type="checkbox"/> Lacosamide		
	<input type="checkbox"/> Perampanel		
	<input type="checkbox"/> Phenobarbital		
	<input type="checkbox"/> Phenytoin sodium		
	<input type="checkbox"/> Zonisamide		
	<input type="checkbox"/> Clonazepam		
<input type="checkbox"/> Others_____			
Have you had any COVID-19 vaccine?	<input type="radio"/> Yes <input type="radio"/> No	Willingness to be vaccinated (If not yet been vaccinated)	<input type="radio"/> Yes <input type="radio"/> No
Do you have any of these Contraindications?	<input type="radio"/> Yes	<input type="checkbox"/> Allergy to any vaccine components	
		<input type="checkbox"/> Severe allergic reactions to previous vaccination	
		<input type="checkbox"/> Uncontrolled seizures or other severe neurological disease	
		<input type="checkbox"/> Fever, acute disorders, acute phase of chronic disease, uncontrolled severe chronic disease	
		<input type="checkbox"/> Pregnancy	

	<input type="radio"/> No			
Why haven't you been vaccinated? (If not yet vaccinated)	<input type="checkbox"/> Uncontrolled disease			
	<input type="checkbox"/> Worries about the interaction between my current medication and vaccine			
	<input type="checkbox"/> Worries about potential adverse events of the vaccine			
	<input type="checkbox"/> In a second priority age group			
	<input type="checkbox"/> Contraindications			
	<input type="checkbox"/> Other_____			
History of febrile convulsion before the age of five?	<input type="radio"/> Yes <input type="radio"/> No			
What kind of vaccines did you vaccinate?	<input type="checkbox"/> Inactivated vaccine from Sinopharm's Beijing institute			
	<input type="checkbox"/> Inactivated vaccine from Sinopharm's Wuhan institute			
	<input type="checkbox"/> Sinovac's CoronaVac			
	<input type="checkbox"/> Viral vector vaccine (CanSino)			
	<input type="checkbox"/> Protein subunit vaccine (Anhui Zhifei Longcom)			
	<input type="checkbox"/> Other_____			
Date of the first injection				
Date of the last seizure before the first injection				
Were there any adverse events after the first injection?	<input type="radio"/> Yes	<input type="checkbox"/> A local injection site skin adverse event		
		<input type="checkbox"/> Muscle pain		
		<input type="checkbox"/> Fatigue		
		<input type="checkbox"/> Fever, temperature as		
		<input type="checkbox"/> Headache		
		<input type="checkbox"/> Drowsiness		
		<input type="checkbox"/> Other_____		
	<input type="radio"/> No			
Were there any changes in seizure frequency after the first injection?	<input type="radio"/> Yes(* the seizure increased over 25%)	<input type="radio"/> Increased seizures <input type="radio"/> Decreased seizures	Seizure frequency after the injection	<input type="radio"/> At least one attack per day
				<input type="radio"/> At least threes attack per week
				<input type="radio"/> At least one attack per week
				<input type="radio"/> At least one attack per month
				<input type="radio"/> At least one attack every 3 months
				<input type="radio"/> At least one attack every 6 months
				<input type="radio"/> Only one seizure in previous 12 months
				<input type="radio"/> Seizure recurrence after one

				or more years seizure free
	○No			
Date of the second injection				
Date of the last seizure before the second injection				
Were there any adverse events after the second injection	○Yes	<input type="checkbox"/> A local injection site skin adverse event		
		<input type="checkbox"/> Muscle pain		
		<input type="checkbox"/> Fatigue		
		<input type="checkbox"/> Fever, Peak temperature as		
		<input type="checkbox"/> Headache		
		<input type="checkbox"/> Drowsiness		
		<input type="checkbox"/> Other_____		
	○No			
Were there any changes in seizure frequency after the second injection?	○Yes(* the seizure increased over 25%)	○Increased seizures ○Decreased seizures	Seizure frequency after the injection	○At least one attack per day
				○At least three attacks per week
				○At least one attack per week
				○At least one attack per month
				○At least one attack every 3 months
				○At least one attack every 6 months
				○Only one seizure in previous 12 months
				○Seizure recurrence after one more year seizure free
				○No
Date of the third injection				
Date of the last seizure before the third injection				
Were there any adverse events after the third injection?	○Yes	<input type="checkbox"/> A local injection site skin adverse event		
		<input type="checkbox"/> Muscle pain		
		<input type="checkbox"/> Fatigue		
		<input type="checkbox"/> Fever, peak temperature as		
		<input type="checkbox"/> Headache		
		<input type="checkbox"/> Drowsiness		
		<input type="checkbox"/> Other_____		
	○No			

Were there any changes in seizure frequency after the third injection?	○Yes(([*] the seizure increased over 25%))	○Increased seizures ○Decreased seizures	Seizure frequency after the injection	○At least one attack per day
				○At least three attacks per week
				○At least one attack per week
				○At least one attack per month
				○At least one attack every 3 months
				○At least one attack every 6 months
				○Only one seizure in previous 12 months
				○Seizure recurrence after one more year seizure free
○No				
Have you adjusted your medication during the vaccination period (from the first injection to one week after the completion of vaccination schedule)?	○Yes	□The dose of ASMs increased		
		□The type of ASMs increased		
		□The dose of ASMs decreased		
		□The type of ASMs decreased		
	○No			
The main reason for the change in medication?	○Physician's advice			
	○Increased seizures after vaccination			
	○Worries about increased seizures after vaccination			
	○Worries about interaction between vaccine and ASMs			
	○An attempt to withdraw ASMs as seizures were well controlled			
	○Other _____			
Were there any changes in seizure type during the vaccination period (from the first injection to one week after the completion of vaccination schedule)?	○Yes	□New generalized tonic-clonic seizures		
		□There were some new symptoms that I haven't had before: _____		
		□No generalized tonic-clonic seizures since the vaccinations: _____		
		□Seizure types decreased _____		
		□Other _____		
	○No			