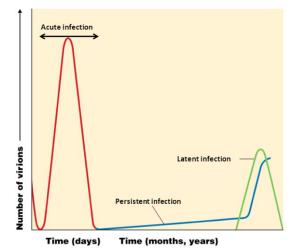


The human nervous system can be infected by many different types of viruses. Once a virus gains access to the nervous system, there are several potential outcomes, including acute replication, persistence, and latency. During all three scenarios, local and peripherally derived immune cells will mount a defense response and attempt to eradicate the pathogen and, in some cases, this immune defense results in severe disease. The ideal scenario is for the host to eliminate the invading virus quickly without causing disease or death; however, some viruses can evade this stage and establish persistence or latency. Persistent viral infections are defined by continual viral replication, whereas latency is a 'dormant' state during which the production of infectious virions is minimized or ceases entirely

but the pathogen is not eliminated. Persistent and latent viral infections that stay within the nervous system can cause a vast array of symptoms including chronic fatigue, muscle weakness or tightness, body pain, numbress or coldness when the periphery nervous system is infected, anxiety, depression when central nervous systems is infected, as well as loss of smell or taste.

There are many different types viruses that can cause infection of the human nervous system. Rabies((-)ssRNA) virus and the West Nile ((+)ssRNA) virus can infect the brain causing encephalitis. Poliovirus, a serotype of the species Enterovirus C is the causative agent of polio. Herpes simplex virus (HSV), usually type 2 (HSV-2) and enterovirus such as echovirus and coxsackievirus which tend to reside in the digestive tract can infect the layers of the tissue that covers the brain and spinal cord, causing meningitis.



1220-01

Many prominent childhood- and adult-onset neurological and psychiatric diseases are hypothesized to be due to infections by viruses such as the herpes virus and Cytomegalovirus (CMV) that occurred at a much younger age. CMV causes chickenpox, herpes simplex, and mononucleosis and it is a common virus for people of all ages. Once infected, your body retains the virus for life. A healthy person's immune system usually keeps the virus from causing illness. However, in an unhealthy person, it can cause many neurological diseases which include Alzheimer's disease, Parkinson's disease, multiple sclerosis, temporal lobe epilepsy, schizophrenia, bipolar disorder, and autism.

Many arenaviruses, such as lymphocytic choriomeningitis virus (LCMV), which is a rodent-borne virus, do not kill host cells but instead cause a persistent infection if the host immune system cannot clear the virus. LCMV which can cause neurological diseases is transmitted when exposed to fresh urine, droppings, saliva, or nesting materials from infected rodents such as mice which are the natural host and principal reservoir of LCMV. A much more severe disease ensues when the infection occurs prenatally. LCMV can infect the fetal brain and retina, where it leads to substantial injury and permanent dysfunction.

Central nervous system (CNS) complications of Epstein-Barr virus (EBV) infection occur in 1 to 18% of patients with infectious mononucleosis and include encephalitis, meningitis, cerebellitis, polyradiculomyelitis, transverse myelitis, cranial and peripheral neuropathies, and psychiatric abnormalities.⁶ EBV may also exist in a latent state within the nervous system and reactivation of a latent virus can invade the CNS and cause myelopathic syndromes such as multiple sclerosis.⁷

Chronic Fatigue

Although it is hard to pin down the exact cause of chronic fatigue syndrome (CFS), researchers have long believed that many cases are caused by an active viral infection or by an infection that permanently alters the immune system before leaving the body. This is because the bodies of patients who suffer from CFS show signs of an activated immune system. A 2010 study linked enterovirus and EBV as two of the most common infectious triggers of CFS.⁴

Human herpes viruses including EBV, which infects over 90% of the world population, has also been linked to CFS. Although B and T cells are supposed to help keep the virus at bay when it is reactivated, studies have found that both cell types were unable to remember EBV.^{2,6} This means that when reactivated, the virus would be able to thrive, reproduce, and cause symptoms such as chronic fatigue. Of the 400 participants in the study, 76% of them had impaired cellular memory in their immune system.²

Enterovirus, which live and reproduce in the intestinal tract, has also been linked to CFS. It is now understood that enterovirus B serotypes such as coxsackievirus B and echovirus are capable of mutating during the acute infection into an aberrant viral form called non-cytolytic enterovirus that can cause persistent low-level infections. These persistent non-cytolytic enterovirus infections deriving from mutated enterovirus B serotypes are found in CFS. There have also been over 30 studies on enterovirus infections in CFS and most of the studies have found enterovirus present in CFS patients' muscle, stomach, brain tissues, and blood cells.

Depression and Anxiety

Viral latency in the nervous system which can later be activated has been shown to cause cognitive and behavioral disturbances. Human herpesvirus when active has been shown to provide molecular evidence of causing major depression disorder.

Human herpesvirus type 6 (HHV6) is the virus that causes Roseola infantus, also called exanthema subitum, which is a common infectious disease in infants. Roseola is generally mild infection with symptoms including several days of high fever, followed by a rash which may appear as many small pink spots. Almost all people are infected during their infancy, and after that, they carry the latent virus in their bodies. Normally, the virus remains dormant, but when the body is fatigued, HHV6 is awakened and is present in saliva to escape from the weakening host.³ Some of the virus reaches and infects the olfactory bulb, the center in the brain connected to the sense of smell, by flowing up from the mouth to the nose.³ A research team determined that if reinfection occurs, a certain protein, SITH1, are produced in the olfactory bulb.³ By their production, excessive calcium flows into brain cells and kill them. The result of this leads to the development of depression.

If the patient is experiencing anxiety and depression symptoms not related to a viral infection, please see the Stress, Depression, and Anxiety Protocol for a wellness recommendation.

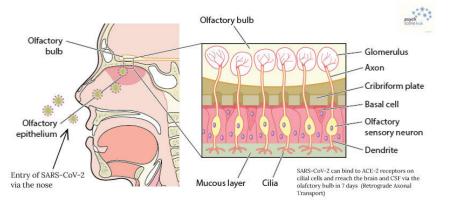
Olfactory Issues

Although major symptoms are primarily generated from the respiratory system, neurological symptoms are also being reported in some confirmed cases of COVID-19. The potential for significant neurological deficits recently became a concern following the report of a COVID-19 patient who demonstrated loss of involuntary control of breathing due to presumed involvement of the inspiratory area in the brainstem, as well as reports of SARS-CoV-2 infected patients developing ataxia, loss of smell, and convulsions.⁸

SARS-CoV-2, the coronavirus that causes COVID-19, binds to a protein called ACE2 that's found on the surface of potential host cells. ACE2 is abundant on cells found in the nose and mouth. Researchers have found ACE2 on cells that surround and support nerve cells that detect scents.¹ It's possible that infection of these surrounding cells could lead to levels of inflammation or damage that impact the ability to smell and therefore taste.¹ This inflammation can persist even after the patient tests negative for COVID-19 leading to prolonged symptoms of loss of taste and smell.

Several routes have been proposed for coronaviruses gaining access to the CNS. In a study done on mice, SARS-CoV seems to enter the brain via the olfactory bulb post intranasal inoculation before disseminating transneuronally to distal connected neurons.⁸

If the patient is experiencing other symptoms such as fever, shortness of breath, coughing, or other COVID-19 related symptoms, please refer to the COVID-19 Protocol for a wellness recommendation.



Wellness Recommendation

The wellness recommendation for patients suffering from nervous system viral infections as well as complications such as anxiety, depression, olfactory issues, and chronic fatigue includes Linguicin. Linguicin helps nurture the Qi and Blood in the meridian as well as clears Evil Qi from the meridian. The herbal ingredients work together to help clear chronic viral infections in the nervous system as well as reduce the resulting inflammation. Cinnamomi cortex, an herb utilized in Linguicin, has been shown to inhibit viral growth and reduce virus yield.⁵ Xcel, LC Balancer, and Brown are also recommended to help support the body in flushing out any excess toxins. Patients can experience symptom improvement within 1-3 days. 4-6 weeks of treatment is required to have a significant improvement.

If patients are suffering from post-COVID complications and are not experiencing symptom improvement with Linguicin, the recommendation includes Brown, LC Balancer, Nova, Sona, Resurgen and Surgenin. Brown and LC Balancer help to aid the body in expelling any excess toxins or irritants through improving liver and kidney function. Sona helps clear blood stagnation and improve and enhance lymph node function and their processing capabilities. Resurgen and Surgenin help to remove blood stasis, damp and heat from the brain blood vessels. Nova also helps to remove blood stasis caused by a stagnation to further enhance blood flow and reduce inflammation. By reducing the inflammation in the area and supporting it with nutrients and blood flow, the nerve cells that detect scent can resume normal activities. Patients can experience symptom improvement within 1-3 days. 2-4 weeks of treatment is required to have a significant improvement.

For conditions which involve both persistent infections and frequent acute flare ups with the virus actively replicating and releasing into the extracellular spaces, the recommendation also includes Woad, Woad-R, Bitter, Brown, Qi Booster, and LC Balancer. The recommendation also includes formulas described in the following chart below that address the locally infected cells together with Brown, LC Balancer, and Xcel. Patients can experience symptom improvement within 1-3 days. 4-6 weeks of treatment are required to have a significant improvement.

Location	Product	Description
All viruses in acute phase	Woad	Clears extracellular viruses systemically
		shingles, herpes, HPV
All viruses in acute phase	Bitter, Brown, Qi Booster, LC	Enhance innate immunity
	Balancer	
Liver in acute phase	Woad-R	Clears extracellular viruses in liver, shingles, herpes,
		HPV
Liver/Blood	Pleurum	Clears persistent viral infections in the liver and blood,
		mononucleosis, Epstein Barr virus, human
		papillomavirus, warts
Kidneys / Urinary Tract	Pleurum-K, Vine	Clears persistent viral infections in the
		kidneys and urinary tract
		cytomegalovirus, collapsed glomerulopathy, anemia,
		low grade fever, flank pain, nausea

Bladder / Renal Pelvis	Bean	Clears persistent bladder / renal pelvis viral infections, cystitis, ulceration, cloudy urine, blood / white tissue in urine
Lymphatic system	Indigo, Indigo-2	Clears persistent viral infections in lymphatic system, chronic myeloid leukemia
GI Tract	Musk	Clears persistent viral infections in the stomach and digestive tract, heart burn, abdominal pain, chronic diarrhea
Heart	Amber	Clears persistent viral infections in the heart myocarditis, flu-like symptom, premature beat, chest tightness, fatigue, CHF
Respiratory in acute phase	CL	Clears extracellular viruses in the lungs
Respiratory	Perilla	Clears persistent viral infections in the lungs asthma flare up, COPD/IPF exacerbation
Throat / Nasal	Perilla-R	Clears persistent viral infections in the throat and nasal pathway, allergies
Respiratory	Jade	Enhances lung immunity
Blood Vessels	Sophia	Clears persistent viral infections in the blood vessels, vasculitis
Brain	Almond	Clears persistent viral infections in the brain poor memory, declining cognitive function
Brain	Gold	Clears brain scar tissue caused by viruses
Skin	Saponin	Clears persistent viral infections in the skin human papillomavirus, blisters, rashes, warts
Skin	Jade-R	Enhances skin immunity
Nervous System	Linguicin	Clears persistent viral infections in the nervous system, anxiety, depression, fatigue, feeling of cold, numb and pain on the skin
Bone	Pueria	Clears persistent viral infections bone, bone tissue necrosis, alveolar abscess and bone loss
Bone Marrow	Fenugreek	Clears persistent viral infections in the bone marrow, fatigue, abdominal / chest pain, back/leg pain, loose stools, poor appetite
Microcapillary	Pterin	Clears persistent viral infections in the microcapillaries, flu-like symptoms, feeling of sickness

Selected Case Studies

Case 1: Addressing Chronic Nervous System Viral Infections Using Linguicin Wei Labs Practitioner, DC from New Mexico (January 2021)

I have had many successes using Wei Lab's Linguicin formula for the treatment of chronic nervous system viral infections and complications ranging from depression and anxiety caused by the virus, narcolepsy caused by H1N1 vaccination which triggered the autoimmunity of the TH4 helper cells, and chronic fatigue caused by the enterovirus and EBV. During COVID-19, I also used the Linguicin for patients who have complications of loss or change of smell and taste with decisive good results.

In every case, the symptoms will show a quick turnaround and patients are rapidly better in just a few days with the use of a maximum of 3 capsules of the Linguicin a day. To address the autoimmunity, I also used the Java/LC

Balancer and Brown/LC Balancer rotation for 6 weeks. To address the narcolepsy, I also used the Narcolecin in combination with the Linguicin.

I had an EBV infection during college and have been dealing with chronic fatigue for many years. I took just 2 capsules of the Linguicin, and next day I felt like the light switched had been turned on with a burst of energy and better stamina. My thigh muscle had been very weak and this was also changed within 24 hours with the Linguicin. I can now squat down easily, something I could not do before.

Case 2: Treatment of Post-COVID Complications: Loss of Smell and Taste Christopher Lewis, DC, TN (January 2021)

A 24 y.o. female patient had contracted COVID-19 with a positive response on the COVID test. After using Wei Lab's Silver Flower for 1 week, she was still experiencing a headache and no sense of smell or taste.

LC Balancer, Brown, Xcel, Nova, Sona, Sona-R and CV were recommended to the patient. After 4 days, the headache was much better, but she still had no sense of smell or taste. The Sona-R, CV, and Xcel were removed from the prescription. The patient stayed on Brown, LC Balancer, Nova, Sona, and added in Resurgen and Surgenin. After 1 day with these formulas, her taste and smell improved by 50%. After 1 weeks use of these formulas, her taste and smell improved by 50%.

Case 3: COVID-19 Patient Regained Sense of Smell and Taste with Linguicin Wei Labs Practitioner (November 2020)

A female patient unknowingly came into contact with another person who had COVID-19 on Saturday Nov 7th. The following week on Tuesday November 10th, the patient woke up with body aches and a minor headache. By Thursday, the patient had lost her ability to taste and smell by 100%. After the notification of a positive test, the patient started taking the Silver Flower and Linguicin formulas from Wei Labs on Saturday the 14th.

By Monday the 16th all symptoms aside from taste and smell were eliminated. On Wednesday the 18th, the patient was able to make out faint smells again - about 25% of smell. Thursday the 19th 50% of her taste returned along with 50% of her smell. From there it was a gradual improvement and by that Sunday the 24th, the patient had regained all of her taste and smell.

Case 4: Symptom Improvement Following Positive COVID-19 Diagnosis Ayla Wolf, DAOM (January 2021)

A woman in her late 50's tested positive for COVID-19. Her symptoms started out as a fever, cough, and sore throat, then progressed into breathing difficulties that required hospitalization. It took 4 days until her low oxygen saturation levels returned to normal. Upon release from the hospital, she no longer had a fever, cough or sore throat, however she complained of severe fatigue, spontaneous sweating at night, brain fog, and an altered sense of taste where foods all tasted like "rotting meat" leading to a loss of appetite and difficulty with eating.

On Nov 28th, 2020 she started taking Jade and Linguicin from Wei Labs. For both formulas, the dosing was 2 capsules 3x/day. By Dec 1st she reported improved energy levels and less brain fog. By Dec 4th her sense of taste was starting to improve, she no longer had any night sweats, had not required a nap in 4 days, had continued improvements in energy levels and cognitive function. She stated she was 95% back to normal. By Dec 17th she reported her sense of taste had been back to normal for several days.

<u>Case 5: Successful Resolution of Epilepsy</u> Wei Laboratories Practitioner, DC, New Mexico (January 11, 2021)

A 13-year-old boy was experiencing grand mal seizure six times each night since he was 8 months old after he was given a Tylenol following a fever after a vaccination. He is severely behind in his mental and physical development and is not able maintain his academics in school.

On July 21st of 2014, his mother brought him to the clinic. The practitioner thought reducing the brain inflammation should be the first step and recommended him Wei Lab's Platinum and LC Balancer at ½ dose to reduce his brain inflammation and improve his microcirculation and kidney function.

On the follow-up visit, the mother reported that in the initial three nights after taking the herbal formula, the patient experienced one mild seizure one night, one night with no seizure at all and the 3rd night with a mild seizure until 6 am. On the 4th night, the patient started to experience seizures in greater intensity. So, it seemed that the brain inflammation may have had an additional cause and therefore Hepavin was recommended to remove liver heat and quench the liver yang rising. With the use of the three formulas Platinum, Hepavin and LC Balancer, the patient's seizures were less severe, lighter, and less frequent. Then the improvement seemed to plateau. KS formula was added to reduce kidney heat. However, with the KS, the patient's seizures actually started increasing. So, the practitioner recommended the Brown and Qi Booster to improve liver and immune health.

On September 12th, the mother reported that with the use of the Platinum, Hepavin, LC Balancer, and Brown for three weeks, the patient was progressing very well. During the next 6 weeks, the patient continued the treatment. During the 6 weeks, the seizures were occurring at a low rate, but there were still sometimes seizure spikes. It was recommended to continue the treatment for 8 more weeks.

On November 4th, after finishing the three and half months of treatment, it was reported that the seizures are definitely lighter in intensity, in some weeks there were no seizures at all, some weeks there was a light seizure in only one night, but were still not totally going away. The patient's mother also mentioned that the patient had issues with short term memory, constipation with only 3-4 bowel movements each week, easily distracted, and had trouble concentrating. Wei Lab's Luminen was recommended to improve his GI health.

Two weeks later on Nov 18th, it was reported that the patient had more bowel movements although, still not daily, and that his brain fog also improved. However, during the last week, there were only two nights that there was no seizure. Therefore, Hepavin was added at 2 capsules a day.

On Dec 11th, it was reported that with the use of Luminen and Hepavin, the patient's seizures were progressing well and his cognitive functions improved as well, but the improvements seemed plateau.

In order to further help the patient, there was a need to find out the exact cause of the problem. In their visit on Jan 6th of 2015, the patient's mother mentioned that the anti-viral and sleep meds seemed to help the patient. The practitioner suspected that the patient may have had a certain viral infection out of the vaccination and recommended Wei Lab's Bitter, Brown, LC Balancer and Qi Booster combo at ½ dose to help clear the viral infection. The patient also liked to scratch his body from itching, a symptom of formication due to liver heat toxin; a lot of constipation and gas; and his nose was chronically stuffy.

The patient started the four-combo treatment on Jan 23rd. On Jan 26th, it was reported that on the very first day of using the Bitter, Brown, LC Balancer and Qi Booster combo, there were no seizures at all. Also, the patient had been drilling for many years which the doctor believed is caused by an allergy. On Feb 2nd, the drilling was stopped totally as well with the treatment. On Feb 17th, after using the combo for two weeks, it was reported that half of the nights there was still a little seizure and half of the nights there was no seizure. It was recommended to continue the treatment.

On March 16th, it was reported that the patient's constipation, which was ongoing since the patient was 8 months old after receiving the vaccination, had improved and he is now having the best and most consistent bowel movements. However, he still was having seizures.

Over the course of the next three years, the patient continued the treatment with Wei Lab's products. His fundamental health improved tremendously and he had better cognition, however, the improvement on the seizures remained at a plateau. It had been reduced from 5-6 grand mal seizures per night to 2-3 mild ones. The patient was bit by a dog in March of 2018, in which the seizures had gotten a lot worse afterward. With the use of the drug Dilantin which treats seizures, the seizure was further reduced. However, it still persisted.

The doctor thought that the patient may have had a virus and the dog bite may have put more of the virus into his system. In May of 2018, the practitioner decided to give him Wei Lab's Woad together with Bitter/Brown/Qi Booster/LC Balancer. Two weeks later, it was reported that ever since the patient was on the treatment, he did not experience any seizures. All the seizures had been cleared up, a clear result that had never happened before. The dosage of Woad was just 1 cap/day and it was up to 2 caps a day after almost two weeks. Interestingly, the patient just had gotten a liver virus test before the treatment and the results show that he was Hep A positive. So, the doctor recommended adding Woad-R to the treatment.

In May of 2018, the patient had an MRI and found a lesion at the cerebellum, located at the bottom of the brain. So, the practitioner recommended Deer and Gingko to help repair the neuron and nerve injuries starting in mid-July of 2018. On July 29th, two weeks after the treatment, it was reported that the treatment had been very helpful. There were no more seizures, the left arm and hand tremors were gone, his cognition was better and he was much more alert, conversational and could focus on school work. But the lesion on the brain was still there. The doctor decided to add Pleurum and Pleurum-K to further clear the virus-infected tissue and cells in the blood, liver, and kidney together with the Deer to help repair brain neuron damage and Ginkgo to help repair nerve damage.

On August 13th, after two more weeks of the treatment, it was reported the patient had further improvement. The Woad and Woad-R helped clear the seizures completely. This new treatment really helped him improve his cognition as well. He had a better concentration in school, could put ideas together, became more alert, and was good on tests. He was really blossoming.

But, the patient was still waking in the morning with his hands moving weirdly. There was a constant fine tremor on both hands with very weak hand strength and very poor hand/eye coordination. Further, the MRI was no longer showing the lesion. However, it showed T-2 signal increase in atrial white matter outside circulation. There was a 4mm region P-2 flair signal at the right cerebella, at the base of the brain. There was no enlargement of vesicles in the brain.

As T-2/P-2 is indicative of perivascular issue, the increased signal means that there was an increase in the perivascular space. Perivascular space in the brain carries lymph processing functions around the blood vessels. Therefore, it indicated that there was an increase in the volume of lymph fluid which caused the increase in the perivascular space. The doctor also thought there might be still some virus in the brain. So, on August 22nd, the practitioner recommended Glia formula from Wei Labs to help reduce glia cell inflammation and enhance the glymphatic function to drain the excessive lymph fluid from the brain. Almond was also recommended to further clear the chronic viral infection in the brain. Emotionally the patient was dealing with a lot of anger and irritability. So, the LC Balancer, Xcel, and Brown were also recommended. These formulas help the liver and kidney to process and secrete toxins.

On October 23rd, two months on the treatment, there were great results reported. The fine tremor in both hands were totally gone and zero seizures. Before he was so weak and couldn't even throw a basketball to hit the board, now he can and can even shoot the ball into the basket. The hand-eye coordination was much improved. He had also joined a welding class and can participate in PE class without a problem. He was also doing well with his mathematics. The brain's cognitive function had much improved.

Also, his acne had gone away completely. The doctor believed that the acne may also have been caused by the virus which had caused his seizures. After using Woad, Woad-R together with the Bitter, Brown, Qi Booster and LC Balancer, the acne started reducing. After using Pleurum and Pleurum-K with the Brown, LC Balancer and Xcel most of his acne was gone. After using Almond with the Brown, LC Balancer and Xcel his acne was completely gone.

However, the patient still had a hard time waking up in the morning. His hands and feet were still cold. He was also a little constipated. The practitioner believes that there might be brain scars that were caused by the inflammation and therefore the Gold formula was recommended at 1 cap a day.

On December 13th, after 6 weeks of using the Gold together with LC Balancer, Brown and Xcel, it was reported that the patient had no seizure and a 12-year-old scar on his body was starting to diminish. His speed in completing his schoolwork had also increased drastically. Now it is taking him 1 hour to do work that took him 6 hours previously. He seems to be going through puberty. His voice is deepening. His musculature is developing.

On a visit in March of 2019, it was reported that the patient was dealing with anger and frustration issues which the practitioner believed were not uncommon as a result of the brain damage. He had become less angry and irritable, but still easily angered if the conversation was not about him. He had immature social skills at the age of 18. He needed some neurological healing and some brain calming formulas and therefore, the Wei Lab's King Formula was recommended to nurture the neurological system in addition to Almond, Gingko, Brown, LC Balancer, Xcel, Gold and Deer.

On April 22nd of 2019, it was reported that the patient was continuing to improve with social skills. His temper and immaturity had also improved. He recognized that his language skill was poor and improved on it.

On July 15th, the practitioner commented that the King Formula had been very helpful. There were no more seizures and he was studying well for his tests and is partially functional. Socially, he was very angry. The practitioner thought it may be caused by limbic area damage. It was recommended to go off Almond, Ginkgo, Gold and Deer and add Glia and Gliagen which nurture the glia cells, Cortigen which helps to address elevated cortisol levels, cold hands and feet, and anxiety and keep King, LC Balancer, Xcel and Brown.

On November 15th, he had been on Cortigen, Glia, Gliagen, King, LC Balancer, Xcel and Brown with no seizures for one year. His brain function and schoolwork had improved. He was doing well with mathematics but was having difficulty with language. He was not able to grasp a concept and write a good paragraph. Then the practitioner recommended We Lab's Clever formula with LC Balancer, Brown and Xcel to restore the neuron connections.

On December 20th, three weeks after using the Clever with LC Balancer, Brown, and Xcel, the practitioner commented that the patient is 18 now and that they have worked with him since he was 13. Usually, the treatment can take 3-4 months in order to see the big changes. He had been on Cortigen, Glia, Gliagen, King, LC Balancer, Xcel and Brow for 4.5 months. Up until the recent 3 weeks, he showed a hopeful leap forward in his progress with the limbic system which is the emotional center. He is no longer frustrated, irritated, and easily angered anymore. His cerebellum function also improved a lot. His eye coordination and balance are better as well. He can play well with siblings and cousins. Overall, he is doing extremely well and the patient is recommended to continue the treatment for three months.

On March 15th of 2020, the practitioner commented that the patient's improvement is solid. He is on the right track in his schoolwork and social life. He had become very mature. The practitioner considered to release him from the treatment.

References:

- Samaranayake LP, Fakhruddin KS, Panduwawala C. Sudden onset, acute loss of taste and smell in coronavirus disease 2019 (COVID-19): a systematic review. Acta Odontol Scand. 2020 Aug;78(6):467-473. doi: 10.1080/00016357.2020.1787505. Epub 2020 Aug 7. PMID: 32762282.
- 2. Loebel M, Strohschein K, Giannini C, et al. <u>Deficient EBV-specific B- and T-cell response in patients with chronic fatigue syndrome.</u> PLoS One. 2014 Jan 15;9(1):e85387. doi:10.1371/journal.pone.0085387
- 3. NAKAMURA, MICHIKO. "Researchers: Virus-Derived Protein Triggers Depression." The Asahi Shimbun, 15 June 2020, www.asahi.com/ajw/articles/13459674.
- 4. Zhang L, Gough J, Christmas D, Mattey DL, Richards SC, Main J, Enlander D, Honeybourne D, Ayres JG, Nutt DJ, Kerr JR. Microbial infections in eight genomic subtypes of chronic fatigue syndrome/myalgic encephalomyelitis. J Clin Pathol. 2010 Feb;63(2):156-64. doi: 10.1136/jcp.2009.072561. Epub 2009 Dec 2. PMID: 19955554; PMCID: PMC2921262.
- 5. Hayashi K, Imanishi N, Kashiwayama Y, Kawano A, Terasawa K, Shimada Y, Ochiai H. Inhibitory effect of cinnamaldehyde, derived from Cinnamomi cortex, on the growth of influenza A/PR/8 virus in vitro and in vivo. Antiviral Res. 2007 Apr;74(1):1-8. doi: 10.1016/j.antiviral.2007.01.003. Epub 2007 Jan 26. PMID: 17303260.
- 6. Martelius, T., Lappalainen, M., Palomäki, M. et al. Clinical characteristics of patients with Epstein Barr virus in cerebrospinal fluid. BMC Infect Dis 11, 281 (2011). https://doi.org/10.1186/1471-2334-11-281
- Pender M. P. (2011). The essential role of Epstein-Barr virus in the pathogenesis of multiple sclerosis. The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry, 17(4), 351–367. https://doi.org/10.1177/1073858410381531
- 8. Cheng Q, Yang Y, Gao J. Infectivity of human coronavirus in the brain. EBioMedicine. 2020 Jun;56:102799. doi: 10.1016/j.ebiom.2020.102799. Epub 2020 May 28. PMID: 32474399; PMCID: PMC7255711.