The family of herpes viruses – a therapeutic challenge

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1. Classification of herpes viruses

8 human-pathogenic herpes viruses belonging to the Herpesviridae family are so far known:

Virus	**Primary infection**	**Reactivation**
Herpes simplex virus 1 (HHV 1)	Gingivostomatitis herpetica	Herpes labialis
Herpes simplex virus 2 (HHV 2)	Herpes genitalis	Herpes genitalis
Varicella zoster virus (VZV) (HHV 3)	Varicella (chickenpox)	Herpes zoster
Epstein-Barr virus (EBV) (HHV 4)	Infectious mononucleosis	Mononucleosis-like exanthema, lymphomas
Cytomegalovirus (CMV) (HHV 5)	Cytomegaly (newborns) Mononucleosis (adults)	Pneumonia in immunodeficient patients
HHV 6	Three-day fever	
HHV 7	Pityriasis rosea	
HHV 8	Kaposi's sarcoma, Non-Hodgkin lymphoma	

1.1. Alphaherpesviruses

- Herpes simplex viruses **HHV 1**, **HHV 2**, and **varicella zoster virus (VZV) HHV 3**
- Membrane-enveloped **DNA viruses** that contain double-stranded DNA (dsDNA) and are easily transmitted in humans due to their high contagiousness.
- The viruses penetrate the nucleus of the host cells and release the **viral DNA genome there.** The virus is then **replicated** in several steps.

- The viruses spread from the epithelial cells of the mucosa to the regional lymph nodes.
- Further proliferation takes place in the cells of the reticuloendothelial system **(RES)**, followed by a second viremia by infection of the endothelial cells of the skin. The VZV can also **infect human T-cells of the immune system** and spread through them in the organism.

1.1.2. Herpes simplex viruses (HSV): HHV 1 and HHV 2:

- Both **herpes simplex virus types** can cause oral or genital infection.
- Most commonly, **HHV 1** leads to **gingivostomatitis**, herpes labialis and herpes keratitis. **HHV 2** usually causes **genital lesions**.
- Common serious infections include encephalitis, meningitis, neonatal herpes and, in immuno-compromised patients, a disseminated infection. In rare cases, hepatitis can also occur in the absence of cutaneous lesions. Infections of the skin and mucous membranes lead to accumulations of small, painful blisters on an erythematous reddened ground.
- **Pathogen persistence:** typical of all alpha herpes viruses is the ability to bind to the receptors of the sensitive nerve fibres by means of so-called ligands and thus to enter the axon by endocytosis and to ascend intra-axonally into the corresponding sensitive spinal ganglia or ganglia of the cranial nerves **viral ascension)** in order to remain there for life.
- After years of dormancy, weakening of the immune system (e.g. stress, febrile diseases, immunosuppression, excessive sunlight and other environmental stimuli, increasing age etc.) can lead to **reactivation** and renewed viral proliferation of the viruses. This can either be asymptomatic or, in the case of **HHV 1**, can lead to renewed **Herpes labialis**, in the case of **HHV 2** to **Herpes genitalis**.

1.1.3. Varizella zoster viruses (HHV 3)

- Primary infection with VZV causes **varicella disease (chickenpox)**, which is a harmless disease in previously healthy children and leads to lifelong immunity.
- The **incubation period** is between 10 and 21 days, **transmission** occurs by droplet infection or skin lesions during the first 5 - 7 days after the appearance of vesicular exanthema.
- The coexistence of papules, bubbles and crusts in different stages is reminiscent of a starry sky and coined the term Heubner star chart.
- More severe courses and complications are rare in immunocompetent persons and occur more frequently in immunocompromised patients. Superinfections with **β-haemolytic streptococci** and their associated consequences, pneumonia, vasculitis and encephalitis (0.1 - 0.2 % of cases) should be mentioned here.
- The typical pathogen persistence with lifelong presence of the viruses is characterised by **virus ascension** into the sensitive spinal ganglia or ganglia of the cranial nerves and **virus descent**, which is initiated by weakening of the immune system and can either proceed without symptoms or can lead to **herpes zoster** (shingles) with and without (**zoster sine herpete**) blistering.

- **<u>Complications</u>: zoster ophtalmicus** manifests itself as inflammation of the conjunctiva, sclera, iris and cornea or as paralysis of the eye muscle. An infestation of the nasociliary nerve of the nose is often a sign of a possible infestation of the eyes. The somewhat rarer **zoster oticus** in the ear region can be accompanied by facial paresis, lead to hearing loss or deafness (cochlear nerve) and disturbances of the sense of balance (vestibular nerve).
- If pain persists for 120 days or more after the exanthema has healed, it is called **post-herpetic neuralgia (PHN)**, which increases with the patient's age and the severity of the original pain. About 10 percent of all patients with shingles develop neuralgia (Loeser 1986).
- Regular contact with chickenpox patients (wild wind pox) is obviously very important for maintaining immunity against VZV. Adults who live with children or have regular contact with children suffering from chickenpox have a lower risk of developing herpes zoster. Widespread chickenpox vaccination carries the risk of a mass epidemic of herpes zoster (Ogunjimi 2015). Recent studies from the USA show a **significant increase in herpes zoster** in children and adults and an increase in complications (zoster ophtalmicus) (Davies 2016, Chan 2015).
- The Robert Koch Institute has come to the conclusion that there has already been a continuous decrease in the duration of vaccination protection and that the lack of contact with wild wind pox is likely to lead to a doubling of the number of complicated cases in adults. Moreover, there will be an increase in cases of shingles and an increase in deaths from chickenpox and shingles for at least several decades (RKI 2016). We are already experiencing this in our surgeries.

We found resonance with “varizella zoster” in our practice in the following clinical pictures, either individually or in combination with other ampoules:

- Herpes zoster, zoster ophtalmicus and herpetiform skin diseases
- Psoriasis/neurodermitis
- Zoster sine herpete, neuralgia (e.g. trigeminal neuralgia etc.), post zoster neuralgia
- Chron. pain syndrome, migraine
- Frozen shoulder
- Chron. rec. temporomandibular joint block
- Tinnitus, acute hearing loss
- Facial paresis
- Toothache of unknown origin
- Neurological diseases (e.g. multiple sclerosis, Parkinson's disease, amyotrophic lateral sclerosis, epilepsy etc.)
- Borreliose/neuroborreliose
- Disorders of the autonomic/vegetative nervous system
- Diabetic neuropathy, polyneuropathy
- Burning sensations, paresthesia
- Pruritus of unclear origin (especially nocturnal)
- Vaginitis, colitis
- Interstitial cystitis

- Anxiety, restlessness, nervousness, listlessness, exhaustion, chronic fatigue syndrome, depression
- Adrenal fatigue/adrenal weakness
- Fibromyalgia
- Autoimmune diseases (e.g. Hashimoto thyroiditis, myasthenia gravis, sarcoidosis, rheumatic diseases etc.)
- Colitis ulcerosa
- Tumour diseases

1.2. Gammaherpes viruses

The gammaherpes viruses are **Epstein-Barr-Viruses (EBV) (HHV 4)**, the pathogens of **Pfeiffer's disease** or **mononucleosis** and **HHV 8** viruses.

1.2.1. Epstein-Barr virus (EBV) (HHV 4)

- The virus is transmitted by **droplet infection**, i.e. via saliva, mucous membrane contacts and via the blood. The viruses can survive outside the body for up to several hours or even up to 3 days, depending on humidity and environmental conditions. The main entry points are the mucous membranes of the mouth, nose and eyes.
- About 90 % of the world's population carry EBV, but fortunately only a fraction of those infected fall ill. The disease often proceeds without symptoms in children.
- The symptoms of acute infections range from almost **symptomless progress** to severe febrile infections.
- Like all herpes viruses, EBV is able to persist for life in its target cells, the **epithelium of the mouth and throat and the B-lymphocytes**.
- In 2013, scientists from the German Cancer Research Centre led by Prof. Henri-Jaques Delecluse discovered that there are **different strains of EBV that exhibit different degrees of aggressiveness**. In recent years it has been shown that **virus type M81** is suspected of infecting not only B-lymphocytes but also epithelial cells of the nasal mucosa, thereby triggering nasopharyngeal carcinoma. One reason is the different behaviour in a genetic element called **EBER2**. EBER2 from M81 stimulates the production of CXCL8, a messenger substance that plays an important role in inflammatory processes and the development of tumours. The EBER2 RNA is packed into small vesicles in the infected cell and then transported into neighbouring cells, which then also start to produce CXCL8. This ultimately stimulates the virus to produce offspring. (9,10,11)

It is now known for certain that EBV can be reactivated in the same way as all herpes viruses. So-called **atypical courses**, where the typical lymph node swelling is absent and severe fatigue, loss of activity and diffuse pain are the main symptoms are particularly difficult to diagnose. When infectious mononucleosis turns into a **chronically active form**, the symptoms can persist for months and years. The main starting point for **chronification** is a weakened immune system. This can have many causes:

- Pollution with environmental and residential toxins
- Contamination with heavy metals
- Radiation exposure/geopathic exposure

- Gastrointestinal infections
- Rec. antibiotic treatments
- Leaky gut syndrome
- Exposure to other pathogens: bacteria, parasites, fungi
- Damage caused by vaccination
- Psychological stress
- Genetic disorders

Symptoms of chronic EBV infection

Most commonly, the brain, certain nerves and organs, liver, spleen, lymph nodes, salivary glands, muscles and joints, as well as white and red blood cells are affected. The intensity of the symptoms depends on the overall state of the immune system, the loads on the patient and their psychological state. In addition to phases of severe discomfort, periods of inactivity can also recur.

- Headaches, dizziness, concentration disorders (ADS), memory disorders
- Tinnitus
- Chronic tiredness and fatigue
- Inner restlessness, mental disorders
- Insomnia
- Epilepsy
- Subfebrile body temperature
- Thyroid disorders (hypothyroidism, hyperthyroidism, Hashimoto thyroiditis)
- Hormonal disorders
- Cardiac palpitations, cardiac arrhythmia
- Liver dysfunction and excretory disorders
- Chronic kidney problems
- Enlarged spleen
- Swollen lymph nodes
- Nerve pain, muscle pain
- Rheumatic problems
- Blood count changes through to pancytopenia (9)

Special aspects of the chronic EBV infection:

- EBV attacks the **small intestinal mucosa** and irritates the immunoglobulins there.
- EBV infects the **B-lymphocytes**, which are responsible for the formation of antibodies.
- Interestingly, not only the typical antibodies are formed, but also antibodies that can **feign an infection with other pathogens** (e.g. borreliosis).
- As a result of infection with EBV, **marker cells**, which mark pathogens and thus make them recognizable for our immune system, **no longer function properly** (marker p41). Pathogens are therefore either not marked at all or only incompletely.
- Mistakenly, the body's own cells can also be marked and then attacked by the immune system **(autoimmune disease)**.

- EBV **blocks the healing of other diseases** (typical “flu-like feeling” that comes and goes)
- EBV patients suffer from **recurrent infections** (sinus bronchitis, sinusitis, otitis, sore throat etc.)
- EBV always occurs in **combination with other pathogens**. For example, in chronic fatigue syndrome (CFS) together with borrelia and borna viruses, sometimes also with other pathogens.
- EBV is considered a cause of **chronic polyarthritis** and other rheumatic diseases. The connection is more or less certain in Sjögren's syndrome.
- EBV **alters the vitamin D3 receptor (VDR).** It slows down the expression of VDR in lymphoblasts by a factor of 30, resulting in a **severe deficiency of vitamin D3** and an increased concentration of the vitamin D metabolite 1,25 (OH). Similar changes can also be caused by borrelia, CMV, aspergillus fumigatus, mycobacterium leprae and tuberculosis in different intensities. The deregulation of VDR appears to be an efficient survival mechanism for these pathogens.
- EBV also affect the **glucocorticoid receptors**, androgen receptors and thyroid receptors, which can cause numerous **hormonal changes.**
- EBV and **multiple sclerosis**: nests of EBV-infected B-lymphocytes have been found in the brain lesions of patients with multiple sclerosis. Similar observations were also made in the diseased tissue of patients with other autoimmune disorders. The viruses are introduced into the CNS via B-lymphocytes, which attack them, like in a **Trojan horse**. The infected B-lymphocytes then become the target of the immune attack themselves. The immune reaction triggers chronic inflammation, which ultimately leads to the destruction of brain tissue. (13)
- The cause of the **poor visibility of EBV to the immune system** is the viral protein LMP2A. It helps EBV-infected cells to hide from T-cells. LMP2A could also be of significance in the development of cancer caused by EBV. LMP2A might weaken the immune response against cancer cells in nasopharyngeal carcinoma and Hodgkin's disease and thus contribute to the onset of the condition. (14)
- A specific viral gene (EBNA-3A) controls the life cycle of cells infected with EBV and thus plays a role in malignant diseases. EBNA-3A is significantly involved in the regulation of numerous genes that control biological processes such as **apoptosis** (programmed cell death) or the regulation of the cell cycle. (15)
- Another viral protein, **EBNA-1**, is responsible for the **development of cancer** and upsets the cell machinery by causing an increase in free radicals that attack different enzymes and signal substances. Cell growth and cell division spin out of control, allowing a tumour to develop.
- There are usually too few MHC class I molecules on **breast cancer cells**. This may be related to the infection of breast cancer cells with EBV, which suppresses these proteins and thus makes the cells resistant to natural killer cells. Treatment with taxanes is thought to be less effective than curcumin because so many breast cancer cells are infected with EBV. (20)

- In contrast to many other viruses, which immediately switch to virus replication, releasing the new viruses and thus attracting the attention of the immune system, EBVs use a different strategy: instead of putting all energy into virus replication in the cell, it enters a **dormant state** following infection, thus preventing the immune system from responding. The virus infects cells of the immune system (B-cells), initially introducing its **genetic material into their nucleus**. Subsequently, only a few genes are converted into proteins by the cell. These latent genes keep the EBV genome stable in the nucleus while the cell reproduces itself. This seemingly **peaceful coexistence** ends when the virus enters the replication phase or triggers tumour growth. (16)
- **EBV as "cancer driver"**: in a recent publication, Prof. Delecluse and his team together with the research group of Ingrid Hoffmann, also at the GCRC, provided a new and surprising explanation for the development of tumours through EBV. The scientists showed for the first time that a protein component of the viruses drives the development of cancer: when an EBV-infected cell divides, the **viral protein BNRF1** prevents the proper course of the process – more than two spindle poles (centrosomes) are often formed. The logical conclusion is that the chromosomes are no longer distributed evenly and accurately to both daughter cells – a known and recognised cause of cancer. Epstein-Barr viruses from which the scientists had removed BNRF1 do not affect the distribution of chromosomes.
- EBVs prevent infected cells from making themselves known to the immune system. To this end, it produces small molecules, so-called **microRNAs**, which prevent the corresponding warning signals of the immune system from occurring in the first place.

Other EBV-related diseases

- Autoimmune diseases (especially multiple sclerosis, lupus erythematosus, Hashimoto thyroiditis etc.)
- Tumour diseases (Hodgkin's disease, non-Hodgkin's lymphomas, Burkitt's lymphoma, nasopharyngeal carcinomas, leiomyosarcomas, CNS lymphomas, hairy cell leukaemia, breast cancer etc.)
- Chronic fatigue syndrome
- Adrenal fatigue
- Fibromyalgia
- Tinnitus
- Vertigo, Ménière's disease
- Epilepsy
- Chron. pain syndromes, rheumatic diseases
- Behavioural changes, depression, anxiety

1.2.2. HHV 8

The HHV 8 also belongs to the **gamma herpes viruses**. The involvement of HHV 8 is regarded as certain in the development of three diseases:

- Kaposi's sarcoma
- **Lymphomas** (in serous body cavities)
- Certain forms of multicentric **Castleman disease**

- All the aforementioned diseases are rare, but occur more frequently in cases of immune deficiency. Only a small percentage of those infected with HHV 8 contract any of these diseases. An effective vaccination against the virus does not yet exist. Together with the hepatitis B virus (HBV), the hepatitis C virus (HCV), the Epstein-Barr virus (EBV), the human papilloma viruses (HPV) and the human T-lymphotropic virus 1, HHV 8 belongs to a group of **human cancerogenic viruses** that are responsible for approximately 10 to 15 percent of all cancers worldwide.

The transmission of HHV 8 probably occurs – as with other herpes viruses – via saliva and other body secretions and through sexual transmission: oro-genital, oro-anal and oro-oral (kissing).

1.3. Betaherpes viruses

Beta-herpes viruses include **cytomegaloviruses (CMV) (HHV 5)**, **HHV 6** and **HHV 7** viruses. They also remain in human cells for the rest of their lives after infection.

1.3.1. Cytomegaloviruses

- In 99 % of cases, the initial infection with CMV is asymptomatic or with only minor symptoms, meaning that those affected usually notice nothing of the infection. A period of up to 6 weeks can pass between infection and the appearance of symptoms. If symptoms do occur, they consist of fever, swelling of the lymph nodes, headache and aching limbs. Up to 60 % of healthy people are carriers of HCMV, and it remains in the lymphatic tissue **for life**.
- **CMV infections during pregnancy**: at 0.3 - 1 %, they are the most common infections during pregnancy. The infection is transmitted to the unborn child and causes a sometimes life-threatening disease in 40 % of cases. In the first and second third of pregnancy, an infection leads to **malformations of the cardiovascular system, the gastrointestinal tract, the skeletal system or the muscles**. **Hepato-splenomegaly** as well as **microcephalus**, intracerebral calcifications and retinitis may also be observed. The lethality rate is 12 to 30 % and long-term damage occurs in 9 out of 10 surviving children.
- An interesting study was conducted by Jaroslav Flegr at the University of Prague. It showed that CMV infections lead to **behavioural changes** similar to those already observed in **toxoplasmosis**. Patients have less motivation to discover new things, which he attributes to a chronic inflammatory reaction in the brain. The severity of symptoms is statistically significantly increased in people who are infected by both pathogens.

1.3.2. HHV 6

- HHV 6 was isolated from peripheral blood lymphocytes of patients with lymphomas and/or HIV infection in 1986 and was initially called human B-lymphotropic virus (HBLV).
- Two subtypes (**HHV 6A and 6B**) with different pathogenicity and epidemiology can be distinguished, whereby **HHV 6B** was mainly detected in **primary infection in children´**, while **subtype A** is more frequently found in **immunocompromised patients**.
- Seroepidemiological studies show that, at the age of 2 years, 90 % of the children examined already have antibodies against HHV 6 and HHV 7 in their serum, which indicates that the primary infection already occurs in early infancy.
- **Persistent infection** of HHV 6 in up to 80 % of the examined salivary glands and also in bronchial glands.
- Apart from the subsequently discovered **human herpes virus type 7**, HHV 6 is the only known human herpes virus other than VZV that **primarily infects T-lymphocytes** (all other human herpes viruses are B-cell lymphotropic).
- HHV-6B is the cause of **three-day fever** (**exanthema subitum** alias **roseola infantum**, *"sixth disease"*), a disease that occurs predominantly in **infancy or early infancy** (i.e. under 2 years of age). No diseases have been associated with species HHV 6A (the former HHV 6 subtype A). An involvement of these viruses in other diseases is currently being debated.
- The viruses can cause **heart muscle inflammation** or **cardiomyopathy**. They are also under discussion as possible factors in the development of **multiple sclerosis** and **Alzheimer's disease**. However, there are no conclusive data that would prove involvement in these diseases. There are also studies that suggest a connection with **infertility**.

1.3.3. HHV 7

- HHV 7 viruses are frequently found **together with HHV 6**. So they are also considered a possible cause of **three-day fever** and also **pityriasis roseae**. Further associations of HHV 7 have been found in various other diseases, although the clinical significance of the infection is often unclear.
- HHV 7 can in some cases be detected in the **cerebrospinal fluid** of children and immunocompromised adults with diseases of the CNS.
- It is sometimes detected in nasal secretion, sputum or bronchoalveolar lavage in exacerbations of **interstitial lung diseases**, HHV 7.
- There is also evidence that HHV 7 is a contributory cause of **myocarditis** in children.

2. BICOM diagnosis of herpes viruses

We regularly test patients for viruses and other intra- and extracellular pathogens as well as for accompanying loads in our practice. We use the CTT test sets for this purpose. Our energetic diagnosis consists of:

- Anamnesis
- Physical examination
- Test of excretory organs, blockages
- Testing of the CTT-5 element test kit
- Testing of further CTT test kits (viruses and fungi, bacteria, vaccines, metals and miscellaneous, parasites and environmental loads, allergic strains, hormones, orthomolecular test kit, teeth, orthopaedic test kit, and others if required)
- Testing of food supplements, vitamins etc.
- Supplementary laboratory tests, if necessary

Viruses are often found together with other intracellular pathogens. A combination of viruses of the **herpes group** (CTT virus test kit: **"Alphaherpesviruses"**, but also **"Betaherpes viruses"** (cytomegaly) and **"Gammaherpes viruses"** (Epstein-Barr viruses) or **varizella zoster viruses** can usually be found. We also find common resonance with the higher-level ampoule of **"herpes viruses"** from the virus test kit, often along with other viral ampoules such as **"HPV strains"**. Other intracellular pathogens such as bacteria **(chlamydia, mycoplasma, borrelia, bartonella, rickettsia/anaplasma** etc.) are also frequently encountered in combination with the herpes viruses. Please test CTT test kits "Bacteria", "Parasites and environmental loads" and "Vaccinations, heavy metals and miscellaneous" **together** with the already tested virus combination.

The problem with intracellular pathogens such as viruses is that these pathogens can more or less **hide** from the immune system by entering the host cell and even attack cells of the immune system itself (T-and B-cells). Furthermore, as already described, some of them remain dormant in the nervous system for years. This makes our diagnostic work more difficult, so we have to resort to a number of tricks:

1.) **Unmask** (ampoule and/or programme):

- Use the "Intracellular stresses" program as an unmask program (attachment) before actually testing the viruses, or
- Use the ***"Unmask"*** ampoule from the "Degenerated cells" test kit by treating the patient for about 3 minutes with program 192 and this ampoule in the input cup (output hand applicators or mat). Then test the viruses in the usual way.

2.) **Heavy metals (amalgam, mercury)**: use these vials for exposure, so to speak, by using them in the input cup when testing with program 191 or 197 while testing the virus ampoules **("feel-good environment")**.

3.) **Histamine: histamine** can also be used for unmask. Very often, however, it should also be treated together with the viral strain if we find common resonance. Use programme 191 or 197 to test the virus ampoules while the histamine ampoule from the **"Hormone test kit"**, the **"Allergic strains"** or **"Psychosomatic, neurology"** test kit is in the input cup.

4.) **Stress:** The stress ampoule from the **"Allergic strains"** or **"Psychosomatic, neurology"** test kit can also be used for unmask. It is an ampoule that we usually test and treat with an A program (192 or 198). However, if we use it as a provocation, so to speak, when testing, i.e. also with program 191 or 197, we can "unmask" the virus. When it comes to treatment, however, the stress ampoule is then, used with an A program in a second step as a kind of stabilisation after the virus therapy, or, if necessary, in the second channel.

What is important is to find the **combination** that is currently stressing the patient.

This combination is often made up of:

- Viruses
- Bacteria
- Parasites/worms
- Environmental/radiation and geopathic stresses
- Heavy metals
- Chemical loads

New herpes virus test kit:

This new test kit is more detailed and contains additional information that you can use in the treatment of herpes viruses together with the other CTT ampoules. You test the test kit with the usual CTT programs: 191 or 197 (Ai) for the grey virus ampoules and 192 or 198 (A) for the pink ampoule.

3. BICOM treatment of herpes viruses

Acute or chronic infection?

We then create a therapy plan according to priorities with the help of the findings. The decisive factor here is whether it is an **acute** exposure to intracellular pathogens or a **chronic infection**. As a general rule in the case of **chronic infection**, after appropriate blockage therapy and opening of the elimination organs, the **intestine-associated immune system** is treated first (e.g. candida and other fungal loads, bacteria, parasites, allergies, possibly in combination). This is intended to create the prerequisite for the immune system to be sufficiently strengthened to deal with the intracellular load. It is only then that the pathogens are treated in the combinations described below (for acute infections).

In the treatment of an **acute infection** (e.g. acute chickenpox, acute herpes zoster, acute mononucleosis, etc.), on the other hand, the pathogen (or pathogen combination) is treated **immediately** until the acute symptoms disappear. Of course, blockages should also be removed and the elimination organs should be opened. For this purpose, the pathogens are tested together with other loads (bacteria, fungi, viruses, parasites, heavy metals, chemical loads, radiation exposure, environmental pollution) to ascertain the **individual combination for the patient concerned**. These combinations therefore usually consist of viruses, bacteria, (parasites,) heavy metals, radiation, chemical loads and possibly vaccination loads.

Treatment programs:

“Intracellular loads” program (3136.0):

H+Di, lowest frequency, band pass 3.6 Hz, wobble=yes, interval=no, amplification sweep sym., amplification H 5.0 Di 15.0, amplification sweep speed=50 sec, time=8 min

Input cup: saliva, possibly blood

Input: flex. applicator, solar plexus

Output: mat

In channel 2: “Stress” ampoule from the “Allergic strains” test kit, (alternatively: “Neurology/stress” substance complex).

However, you can also use this program for **“unmask”** by running it before you test it.

“Unmask” program:

H+Di, lowest frequency, band pass 3.6 Hz, wobble=yes, amplification sweep sym., amplification H 5.0 Di 15.0, amplification sweep=50 sec, speed=3 min

Input cup: saliva, possibly blood

Input: solar plexus

Output: mat

In channel 2: “Unmask” ampoule from the “Degenerated cells” or “5 elements” test kit.

“Stress reduction“ (3137.0) program

H+Di, lowest frequency, band pass 4.3 Hz, wobble=yes, amplification sweep sym., amplification H 6.3 Di=1.10, amplification sweep speed=10 sec, time=7 min

Input cup: saliva, possibly blood

Input: flex. applicator, solar plexus

Output: mat

In channel 2: “Stress” ampoule from the “Allergic strains” test kit, (alternatively: “Neurology/stress” substance complex).

“Intracellular pathogens 1“ program:

Ai, lowest frequency, band pass 14.5 Hz, wobble=yes, amplification sweep sym., Ai 12.0, sweep speed 25 sec, time=12 min

“Intracellular pathogens 2“ program:

H + Di, normal range, without band pass, amplification sweep increasing H 5.7 Di 8.0, sweep speed 13 sec, time=8 min

“Intracellular pathogens 3“ program:

Ai, lowest frequency, band pass 12.1 Hz, wobble=yes, amplification sweep sym., Ai 64.0, sweep speed 40 sec, time=12 min

“Intracellular pathogens 4“ program:

Ai, lowest frequency, band pass 2.4 Hz, wobble=yes, amplification increase, Ai 6.0, sweep speed 60 sec, interval=no, time=8 min

“Intracellular pathogens 5“ program:

Di, normal range, band pass 74.0 Hz, wobble=yes, amplification pass decreasing Di 4.0, sweep speed 300 sec, time=5 min

“Intracellular pathogens 6“ program:

Ai, normal range, band pass 112 Hz, wobble=yes, amplification sweep decreasing, Ai 40.0, pass speed 300 sec, time=12 min

“Herpes/intracellular pathogens 1“ program:

H+Di, normal range, band pass 160 Hz, wobble=yes, amplification sweep decrease Di 12.0, sweep speed 124 sec, interval=yes, time=16 min

“Herpes/intracellular pathogens 2“ program:

H+Di, lowest frequency, band pass, BP pass speed 185 sec, amplification sweep sym., Di 5.0, interval=yes, time=13 min

Input cup: Viral ampoule or the tested combination, plus patient's blood if necessary **with all programs.**

An input applicator is used only if testing positive, then depending on the position tested (usually the location of the symptoms).

Output: mat

The second channel can either run in parallel with a tested substance complex, a tested orthomolecular substance from the orthomolecular test kit or substances of your choice that have antiviral effects or support the immune system, such as L-lysine, Engystol, samento, Wobenzym, boswellia, curcumin, rhus toxicode toxicodendron etc.

Please test 1 (- 2) of these programs per session for the patient. Always test whether therapy time and amplification are suitable.

Additional program ”Virus drainage”:

A, lowest frequency, band pass, 120 sec, amplification sweep sym., A 10.0, sweep speed 50 sec, time=12 min

Input cup: “Anti-virus” ampoule, and/or “Interferon” (both CTT viruses test kit), and/or “Intracellular drainage” (CTT vaccinations, heavy metals and miscellaneous), and/or “ATP” (hormone test kit), and/or “Stress” (CTT “Allergic load”) and/or “Prevent virus reactivation”

No input applicator

Output: mat

I also continue to use the proven programs 192 or 198 from the CTT with the aforementioned ampoules in the input cup. Test which of these 3 programs suits the patient best and test amplification and therapy time individually.

It is recommended that the therapy information be transferred to a chip or drop/globule.

Summing up

Viruses: friends or enemies?

The latest findings on exosomes, small vesicles that are released by a cell into the environment, show that they not only act as transport vehicles, but also support cell communication and immune modulation. Viruses use exosomes for transport and camouflage. On the other hand, they are currently being discussed as possible treatment options for autoimmune diseases (rheumatoid arthritis) and cancer. Perhaps we should think about whether, as with bacteria in our microbiome, viruses are naturally part of our organisms, and whether we should then take completely new therapeutic approaches.

Instead of permanently fighting them, we should perhaps make more use of their role as information carriers.

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