EPSTEIN-BARR VIRUS & the immune defense system

Epstein-Barr Virus (EBV) is a common human virus that causes infectious mononucleosis and plays a role in the emergence of two rare forms of cancer. Burkitt’s lymphoma, and nasopharyngeal carcinoma.

EBV is in the herpes family of viruses.

- Epstein-Barr virus is named after the scientists who first identified it in the mid-1960s. The virus enters the lymph nodes and attacks the lymphocytes (the white blood cells manufactured there). As the white blood cells come into contact with the virus, they change shape and multiply. At first, there are no symptoms because it takes several weeks before enough of the altered cells can accumulate to generate infection.

- The virus can affect anyone, but the infection most often occurs in people between the ages of 10 and 35, especially teenagers. It can occur as an epidemic or in single cases, and it is believed to be spread by infectious saliva.

- The incubation period for the disease is usually 7 to 14 days in children and adolescents. The incubation period in adults is longer, at times it may be 30 to 50 days.

CAUSES

- Exposure to vaccines, some drugs, massive chemical exposure, and radiation can easily destroy certain cells, called T-regulatory cells, which are produced by the thymus gland and help to suppress the formation of excess antibodies. This condition has been linked to viral diseases such as mononucleosis, hepatitis and influenza.

- A weakened IMMUNE SYSTEM

A very controversial cause of immune malfunction is the procedure of vaccinations and immunizations against common childhood and epidemic diseases. The thymus gland seems to be the site most severely affected, altering the function and activity of this all-important kingpin of the immune system. While severe infectious diseases may be the result of immune deficiencies, they may also be the preceding cause: e.g. it is common for allergies, a frequent result of immune malfunction, to follow a severe case of mononucleosis, hepatitis, rheumatic fever, or other acute viral or bacterial disease which may reduce the production by the thymus gland of T-helper cells necessary to moderate the allergic response. Toxic exposure to chemicals or radiation may have similar results. Prolonged stress also depresses the immune system. However, it is agreed that the most common source of immune deficiencies, is single or multiple nutritional deficiencies. The immune system can only be as healthy as its organized cells and tissues. As the immune system becomes weakened, the body becomes susceptible to any opportunistic virus or bacteria which can take hold with sometimes devastating results. Literally any infectious disease may be considered an immune deficiency because if the immune system were functioning adequately, no such infections could take a hold in the system. This includes a range of infectious diseases from colds to pneumonia, multiply sclerosis, and AIDS.

SYMPTOMS OF EPSTEIN-BARR VIRUS

The infection develops slowly with such mild symptoms that it may initially be indistinguishable from a cold or the flu. As the condition progresses the symptoms may include:

- A sore throat that lasts two weeks or more
- Swollen lymph nodes in the neck, armpits and groin
- A persistent fever (usually about 102°F)
- Fatigue
- Malaise (a vague feeling of discomfort)

Although the symptoms of infectious mononucleosis usually resolve in one or two months, the EBV remains dormant in cells in the throat and blood for the rest of the person’s life. Periodically, the virus can reactivate and can be found in the saliva of infected persons. Once again we would find in this person a depressed immune system. This reactivation usually occurs without symptoms of illness. EBV also establishes a lifelong dormant infection in some cells of the body’s immune system.

TREATMENT OF THE EPSTEIN-BARR VIRUS

In most cases, no specific treatment is necessary. The illness is usually self-limited.

- Since it is a viral infection and viruses do not respond to antibiotics, they are ineffective against mononucleosis/EBV.

Doctors will recommend bedrest and drinking plenty of fluids. When treating the immune system a thorough examination by your health care practitioner is required to establish the causes of this condition. The integrity of the tissues, the cells and the nutritional basis will have to be examined and recommended supplements and a dietary plan will be based accordingly.

- Please refer to Immune system under Ailments for Supplements and Recommendations.