



EBV AUTOIMMUNITY (EBVAD) IN ADHESIVE ARACHNOIDITIS

When most people hear about the Epstein-Barr virus (EBV), they likely recall its reputation as the "kissing disease" known as mononucleosis. To the surprise of many, this previously unheralded virus has recently been discovered to develop an autoimmune disorder that may either cause or aggravate adhesive arachnoiditis (AA) and other painful conditions. Our studies are clear. Every person with AA must be evaluated for EBVAD.

BRIEF HISTORY OF EBV: The name Epstein-Barr-Virus (EBV) is named after Drs. Epstein and Yvonne Barr. In 1964, they discovered and named the virus after they found it in a cancer common in Africa called Burkitt's Lymphoma. Since that time, EBV has been found to cause other cancers including nasopharyngeal, gastric, Hodgkin lymphoma, and leukemia. Estimates are that EBV causes about 200,000 cancers a year.

About three years after Drs. Epstein and Barr discovered EBV, it was found to be the cause of infectious mononucleosis. In 2018 Dr. John Harley of the Cincinnati Children's Hospital found that EBV may cause or aggravate multiple sclerosis, rheumatoid arthritis, celiac disease, type 1 diabetes, inflammatory bowel disease, thyroiditis, and juvenile arthritis. We have now reviewed well over 100 cases of confirmed AA, and every case shows EBV antibody levels that indicate the presence of ongoing EBVAD. All these cases had significant pain and one or more spinal inflammatory conditions besides AA including multiple protruding discs, Tarlov cysts, non-adhesive arachnoiditis, or spinal fluid leaks.

HOW EBVAD DEVELOPS: EBV usually enters the body before age two or by causing infectious mononucleosis in the teenage or young adult years. After the initial infection, EBV settles into one's lymphocytes and lining of the throat and nasal cavity to remain for life. Under normal physiologic circumstances, it is a latent or dormant parasite that does no harm. Over 95% of adults will test positive for low levels of IgG antibodies that developed during their initial contact with the disease. It will remain in this state unless the body undergoes some stress, usually trauma or an infection, that lowers or degrades the body's innate or natural immunologic protection systems. At this time the virus may vacate its dormant or latent state to begin what is called a "lytic" or duplicative state. The term used to indicate this state is "reactivation" meaning that the virus is again active and attacking and invading new tissues. EBVAD seems to preferentially attack "soft" tissues such as small nerves and the lining of organs to produce pain. It seems to be potentiated by Lyme disease, cytomegalovirus, Covid, or herpes viruses.

SUMMARY: EBVAD is not curable but it can be reasonably controlled. Persons with AA and EBVAD require an aggressive treatment protocol to prevent deterioration. Every person with AA needs to be evaluated for EBVAD, and, if present, take special measures to both prevent reactivation and suppress autoimmunity.