



EPSTEIN-BARR-VIRUS (EBV) TESTING FOR MEDICAL MANAGEMENT OF ADHESIVE ARACHNOIDITIS

Reactivation of the Epstein-Barr Virus from its normal, parasitic state may produce autoimmunity or chronic infection of the arachnoid membrane, cauda equina, and glial cells, which are causative factors in the development or propagation of AA and intractable pain. It is essential that every person with AA have the following EBV 4-test panel to determine preventive and therapeutic measures as a major component of AA treatment.

TEST PANEL

	<u>TEST</u>	REASON
1	Viral capsid antigen antibody IgM (Abbreviated VCA)	Is active infectious mononucleosis present?
2	Viral capsid antigen antibody IgG (Abbreviated VCA)	Has there been previous reactivations that may have produced ongoing autoimmunity or tissue infiltration?
3	Nuclear antigen antibody (Abbreviated EBNA)	Very high elevations represent ongoing autoimmunity.
4	<u>EARLY</u> Nuclear Antigen Antibody IgG* (Abbreviated-Early EBNA)	Represents current reactivation of the virus and need for antiviral therapy.

*Polymer Chain Reaction-DNA (PCR-DNA) test may substitute for this test.

SPECIAL NOTE: Arachnoiditis Hope provides interpretation of these tests as a public service.

References:

1. Harvey JB, et al. Transaction factors operate across disease loci with EBNA2 implicated in autoimmunity. *Nat Genet* 2018;50:699-707.
2. Nagata K, et al. Epstein-Barr virus reactivation-induced immunoglobulin production: significance on autoimmunity. *Microorganisms* 2020;8:1875-1890.
3. Jakimola S, et al. Glial cell response to Epstein-Barr virus infection: a plausible contribution to virus-associated inflammatory reactions in the brain. *Virology* 2021;559:182-195.