The diagnosis of EBV infection is summarized as follows:

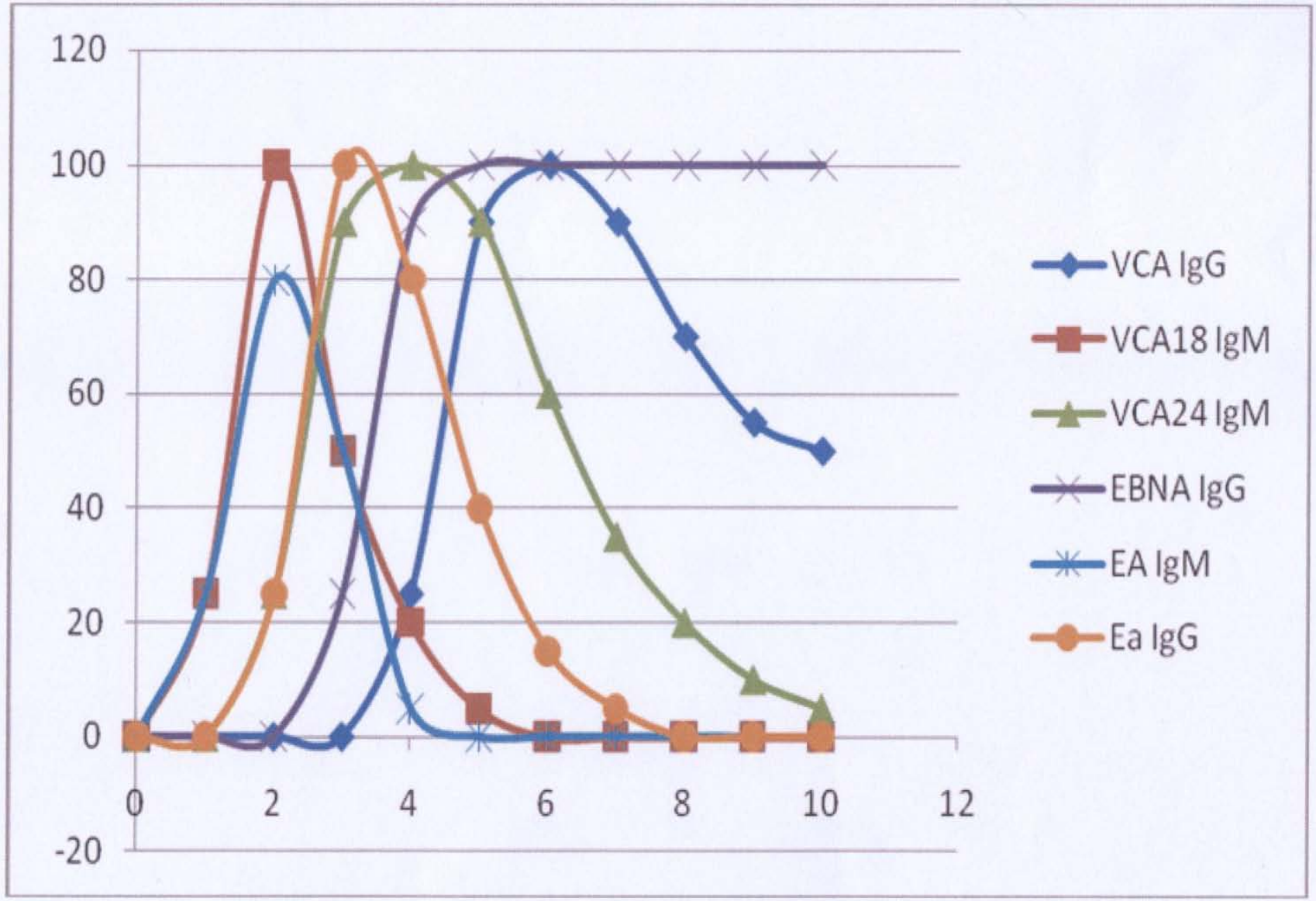
Susceptibility
If antibodies to the viral capsid antigen are not detected, the patient is susceptible to EBV infection.

Primary Infection
Primary EBV infection is indicated if IgM antibody to the viral capsid antigen is present and antibody to EBV nuclear antigen, or EBNA, is absent. A rising or high IgG antibody to the viral capsid antigen and negative antibody to EBNA after at least 4 weeks of illness is also strongly suggestive of primary infection. In addition, 80% of patients with active EBV infection produce antibody to early antigen.

Past Infection
If antibodies to both the viral capsid antigen and EBNA are present, then past infection (from 4 to 6 months to years earlier) is indicated. Since 95% of adults have been infected with EBV, most adults will show antibodies to EBV from infection years earlier. High or elevated antibody levels may be present for years and are not diagnostic of recent infection.

Reactivation
In the presence of antibodies to EBNA, an elevation of antibodies to early antigen suggests reactivation. However, when EBV antibody to the early antigen test is present, this result does not automatically indicate that a patient's current medical condition is caused by EBV. A number of healthy people with no symptoms have antibodies to the EBV early antigen for years after their initial EBV infection. Many times reactivation occurs subclinically.

Chronic EBV Infection
Reliable laboratory evidence for continued active EBV infection is very seldom found in patients who have been ill for more than 4 months. When the illness lasts more than 6 months, it should be investigated to see if other causes of chronic illness or CFS are present.


120
100
80
60
40
20
0
-20
0
2
4
6
8
10
12
VCA IgG
VCA18 IgM
VCA24 IgM
EBNA IgG
EA IgM
Ea IgG