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REFERRING PHYSICIAN

 RESEARCH

 -

PATIENT NAME

SAMPLE, REPORT

AGE SEX

37Y F

ACCESSION NO.

D.O.B.

COLLECTION DATE

LOG-IN DATE

TEST DATE

REPORT DATE

AAAA30

08/11/1984

11/5/2021

12/21/2021

12/21/2021

12/21/2021

TEST

RESULTS
 NORMAL ABNORMAL

REFERENCE
 RANGE

UNITS

EPSTEIN-BARR VIRUS PANEL

TEST	RESULTS	REFERENCE RANGE	UNITS
	NORMAL	ABNORMAL	
IgG EPSTEIN-BARR VCA	1.50	<0.9	ISR
IgM EPSTEIN-BARR VCA	1.50	<0.9	ISR
IgG EARLY ANTIGEN	1.50	<0.9	ISR
IgG EB NUCLEAR ANTIGEN	1.50	<0.9	ISR
IgM EB NUCLEAR ANTIGEN	1.50	<0.9	INDEX

INTERPRETATIONS OF SEROLOGIC PATTERNS IN EBV INFECTION

Patients EBV Status

AB	Susceptible	Primary EBV	Convalescent (3 mo.)	Past	Reactivated
VCA-IgM	-	+	+ or -	-	-
VCA-IgG	-	+	+	+	+
EA-D	-	-	+	-	+
EBNA-IgG	-	-	+ or -	+	+
EBNA-IgM	-	+	+ or -	-	+

- * * * * *
- [] Test results may indicate no viral infection.
- [] Test results may indicate past viral infection.
- [] Test results may indicate on-going viral infection.
- * * * * *

EPSTEIN-BARR VIRUS (EBV) OR HERPES TYPE 4 IS A UBIQUITOUS HUMAN VIRUS THAT INFECTS ALMOST ALL HUMANS DURING THIER LIFETIME. EBV IN CHILDREN AND IN SOME ADULTS CAUSES THE

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INFECTION CALLED MONONUCLEOSIS, WHICH RESULTS IN THE PRODUCTION FIRST OF IgM AND THEN IgG ANITBODIES AGAINST VIRAL CAPSID ANTIGEN (EBV-VCA). FOLLOWING THE ACUTE PHASE, THE VIRUS PERSISTS MAINLY IN THE EPITHELIAL CELLS AND B LYMPHOCYTES FOR THE REST OF THE AFFLICTED PERSONS LIFE.

UNDER A VARIETY OF CONDITIONS THAT NEGATIVELY AFFECT THE IMMUNE SYSTEM, REACTIVATION OF EBV CAN OCCUR, RESULTING IN THE EXPRESSION OF EARLY ANTIGEN (EBV-EA) AND THE PRODUCTION OF ANTIBODY AGAINST EA.

EPSTEIN-BARR NUCLEAR ANTIGEN (EBNA) IS ANOTHER ANTIGEN THAT INDUCES THE PRODUCTION AND PROLIFERATION OF B CELLS, WHICH ARE RESPONSIBLE FOR THE GENERATION OF ANTIBODIES IN THE BODY. THIS IS WHY EBV IS ASSOCIATED WITH DIFFERENT PROLIFERATIVE AND AUTOIMMUNE DISORDEWRS, INCLUDING LYMPHOMAS, RHEUMATOID ARTHRITIS, GRAVES DISEASE, HASHIMOTOS DISEASE, LUPUS, MULTIPLE SCLEROSIS (MS), INFLAMMATORY BOWEL DISEASE, CELIAC DISEASE, TYPE 1 DIABETES, AND SJOGRENS SYNDROME. THE ELEVATION OF IgM ANBTIBODY AGAINST EBV ANTIGENS MAY INDICATE ONGOING VIRAL INFECTION OR VIRAL REACTIVATION. IN THE CASE OF VERY HIGH LEVELS OF IgG ANTIBODY AGAINST EBV ANTIGENS, IF THESE ANTIGENS MANAGE TO BIND TO SELF-TISSUE ANTIGENS DUE TO CROSS-REACTIVITY, THE RESULT MAY BE AUTOIMMUNE REACTIVITY.

REFERENCES

HOUEN G, TRIER NH. EPSTEIN-BARR VIRUS AND SYSTEMIC AUTO-IMMUNE DISEASES. FRONTIERS IN IMMUNOLOGY, JANUARY 2021. DOI:103389/FIMMU.2020.587380.

HARLEY JB ET AL. TRANSCRIPTION FACTORS OPERATE ACROSS DISEASE LOCI, WITH EBNA2 IMPLICATED IN AUTOIMMUNITY. NATURE GENETICS, 50:699-707, 2018.

IgG AND IgM REPORTED AS 0.91-1.09 ARE CONSIDERED EQUIVOCAL.

*Specimens received as hemolytic, lipemic, bacterially contaminated, or heat inactivated, are rejected for analysis.

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