Mr. Saubhik Bhaumik

Age / Sex	: 27 YRS / M
Referred by	: Dr. Sachin Patil (MBBS)
Reg. no.	: 1058

1058

Registered on	: 11/11/2024 04:40 PM
Collected on	: 11/11/2024
Received on	: 11/11/2024
Reported on	: 11/11/2024 04:40 PM

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BIOCHEMISTRY

TEST	VALUE	UNIT	REFERENCE
VITAMIN B12	668	pg/ml	211 - 911

Physiologic Basis
Vitamin B12 is a necessary cofactor for three important biochemical processes: conversion of methylmalonyl-CoA to succinyl-CoA and methylation of homocysteine to methionine and demethylation of methyltetrahydrofolate to tetra-hydrofolate (THF). All vitamin B12 comes from ingestion of foods of animal origin. Vitamin B12 in serum is protein bound, 70% to transcobalamin I (TC I) and 30% to transcobalamin II (TC II). The B12 bound to TC II is physiologically active; that bound to TC I is not.

Interpretation
Increased in: Leukemia (acute myelocytic, chronic myelocytic, chronic lymphocytic, monocytic), marked leukocytosis, polycythemia vera.
Decreased in: Pernicious anemia, gastrectomy, gastric carcinoma, malabsorption, pregnancy, dietary deficiency, HIV infection, chronic high-flux hemodialysis, Alzheimer disease, drugs (eg, omeprazole, metformin, carbamazepine).

Comments
Low serum B12 levels warrant treatment; intermediate levels should be followed by repeated serum tests or by urine methylmalonic acid tests, as well as by serum homocysteine levels. Neurologic disorders caused by low serum B12 level can occur in the absence of macrocytic anemia or pancytopenia.

~~~ End of report ~~~

Mr. Sachin Sharma
DMLT, Lab Incharge

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Dr. A. K. Asthana
MBBS, MD Pathologist