



VAAMA R BALDOTA V2761206

PID NO: P11210033110

Age: 24 Year(s) Sex: Female



Reference: Dr.HORTIKAR A H

Sample Collected At:
R v diagnostics laboratory
76/10 4th main 15 cross malleshwaram
bangalore 560003 zone: out-01(os)
PROCESSING LOCATION:- Metropolis
Healthcare Ltd, Unit No. 409- 416, 4th
Floor, Commercial Building-1, Kohinoor
Mall, Mumbai-70

VID: 11218002501

Registered On:

04/05/2021 03:54 PM

Collected On:

04/05/2021

Reported On:

06/05/2021 05:16 PM

Investigation

Vitamin A (All Trans Retinol), Serum
/EDTA Plasma by HPLC
(EDTA Blood, Serum)

Observed Value

0.32

Unit

mg/L

Biological Reference Interval

0.3-0.6

Remark:

According to WHO guidelines a beginning deficiency in adults is indicated by concentrations between 0.1 to 0.19 mg/l, whereas concentrations < 0.1 mg/l indicate a manifest deficiency, Concentrations > 1.4 mg/l are considered as toxic.

Description Of Test

Vitamin A is the nutritional term for the group of compounds with a 20 carbon structure containing a methyl -substituted cyclohexenyl ring (Beta -ionone ring) & an isoprenoid side chain, with either a hydroxyl group (retinol), an aldehyde group (retinal), a carboxylic acid group (retinoic acid) or an ester group (retinyl ester) at the terminal C 15. Vitamin A deficiency causes degenerative changes in eyes & skin, & poor dark adaptation or night blindness (nyctalopia). More serious effects of deficiency are xerophthalmia, in which the conjunctiva becomes dry with small gray plaques with foamy surfaces (bitots spot), keratomalacia. The skin changes include dryness, roughness, papular eruption & follicular hyperkeratosis.

Technique: HPLC

Decreased IN

1. Preterm infants specially infants with birth weight less than 1500g (< 30 weeks of gestation).
2. Nutritional deficiency
3. Fat malabsorption, particularly caused by celiac disease or chronic pancreatitis.
4. Hepatic disease or alcohol abuse.

Increased IN

Hypervitaminosis A results as a side effect of inappropriate therapy or ingestion of excess Vitamin A.

Dr. Varsha Birla
MD, DNB (BIOCHEMISTRY)



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Investigation

**Vitamin E (Tocopherol) Serum /EDTA
Plasma by HPLC**

(Serum/EDTA Plasma)

Observed Value

10.23

Unit

mg/L

Biological Reference Interval

5-18

DESCRIPTION OF TEST :

Vitamin E is the nutritional term for the group of naturally occurring tocopherols & tocotrienols that have biological activity similar to RRR -alpha -tocopherol.

Vitamin E is considered necessary for (1) neurological & reproductive functions, (2) protecting the RBCs from hemolysis, (3) prevention of retinopathy in premature infants, (4) inhibition of free radical chain reactions of lipid peroxidation.

The signs of Vitamin E deficiency are (1) irritability, (2) edema & (3) hemolytic anaemia.

TECHNIQUE : HPLC

DECREASED IN

1. Premature & Low birth weight infants are particularly susceptible to development of Vitamin E deficiency because transplacental transfer is poor & infants have limited adipose tissue.
2. Fat malabsorption such as in Cystic fibrosis & chronic cholestasis has been known to cause neuropathy & hemolytic anaemia.
3. Rare genetic disorder Abetalipoproteinemia.

INCREASED IN

Vitamin E toxicity is usually rare & can be due to excess dietary supplementation & may cause Vitamin D & K deficiency by competing for the absorption.

Reports to follow - Kindly await following pending reports :

Investigation :

Status

Vitamin K1**

Pending

-- End of Report --

Dr. Varsha Birla
MD, DNB (BIOCHEMISTRY)