To: **Walk In Patients- Bhandup**
Rupa Solitaire Bldg A-1
301,302 and 303, 3rd Floor Millennuim Busness Park- MIDC-Mahape
Navi Mumbai - 400710
Contact: 7045919303
Report Of: Mrs. SHILPA SHINDE
Pt. Contact:

Sample ID	29042301
Patient ID	1002366
Received on	29/04/2023 13:53
Registered on	29/04/2023 13:51
Reported on	17/05/2023 11:52
Referred by	**NITIKA SHRIMAL**

Hemoglobinopathy Screening

Patient Name: Mrs. SHILPA SHINDE
Sample Type: Whole Blood EDTA
Date of Birth/Age: 01/01/1994
Gender: FEMALE
City:
Method: High Performance Liquid Chromatography (HPLC)
Blood Transfusion History:
Referral Reason or Clinical History: Newborn screening test was offered to screen for Inborn Errors of Metabolism in the baby.

About the test

Hemoglobinopathy screening by high performance liquid chromatography is a blood test that is used for detecting quantitative and qualitative abnormalities of hemoglobin (Hb), namely, Thalassemia and Structural Hb variants (e.g. HbS) respectively. The test helps identify individuals with these disorders so that they can receive timely and appropriate treatment and care. Antenatal diagnosis of these disorders allows measures to reduce the chances of the birth of an affected baby. It is also possible to screen the newborns for hemoglobinopathies using this approach, thereby decreasing the mortality & morbidity associated with conditions like Sickle cell disorder.

Test findings

Hb Fraction	Observed Value (%)	Expected Value (%)
HbF	0.3%	<2%
P2*	3.3%	<4.6%
HbA0	88.2%	85 - 95%
HbA2/HbE	3.0%	1.8 - 3.5%
HbD	Absent	Absent
HbS	Absent	Absent

*The mentioned P2 value from BioRad Variant-II HPLC system is equivalent of HbA1c value in BioRad D10 system

Interpretation

No conditions matched for this case

Verified by
Mr. Pradip Kadam
Incharge Biochemistry

Dr. A. Dasgupta MD, PhD,
Consultant Hematopathologist

Patient Name : Mrs. SHILPA SHINDE | Sample ID : 29042301

HPLC Findings

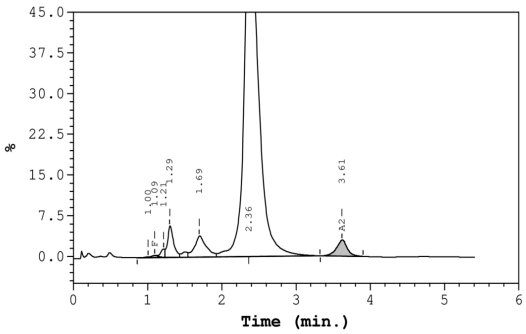
Patient Data

Sample ID: 29042301
Patient ID:
Name:
Physician:
Sex:
DOB:
Comments:

Analysis Data

Analysis Performed: 04/21/2023 11:23:02
Injection Number: 1111
Run Number: 149
Rack ID: 0010
Tube Number: 7
Report Generated: 04/21/2023 11:38:39
Operator ID:

Analysis comments:



Peak Name	Calibrated Area %	Area %	Retention Time (min)	Peak Area
Unknown	---	0.1	1.00	1573
F	0.3	---	1.09	6022
Unknown	---	0.7	1.21	14597
P2	---	3.3	1.29	69756
P3	---	4.4	1.69	94518
Ao	---	88.2	2.36	1889012
A2	3.0	---	3.61	67112

Total Area: 2,142,591

F Concentration = 0.3 %
A2 Concentration = 3.0 %

Important Blood Indices (from CBC Analysis)

Parameters	Result	Reference Range	Units
Hemoglobin (Hb)	12.00	12 - 15	g/dL
RBC Count	4.00	3.8 - 4.8	x 10^6/µL
Hematocrit	40.00	36 - 46	%
Mean Corpuscular Volume (MCV)	⚠	83 - 101	fL
Mean Corpuscular Hb (MCH)	⚠	27 - 32	pg
Mean Corpuscular Hb Conc. (MCHC)	⚠	31.5 - 34.5	g/dL
RBC Distribution Width (RDW) (CV)	⚠	11.6 - 14	%
RBC Distribution Width (RDW) (SD)	⚠	39 - 46	fL

Notes:

1. Recent blood transfusions and iron deficiency can interfere with the results, repeat testing is recommended three months after the last blood transfusion. In case of iron deficiency, it is recommended to evaluate the result post-correction of iron deficiency.
2. Megaloblastic anemia can cause elevated HbA2 levels. A repeat assay is recommended after correction of VitB12 deficiency.
3. Mild to moderately elevated fetal hemoglobin (HbF) values are observed during pregnancy, hypoxia, chronic kidney disease, use of certain drugs,myelodysplastic syndromes (MDS), aplastic anemia and conditions of stress hemopoiesis.
4. Cases with borderline HbA2 levels (3.1-3.9%) could represent Silent Beta-thalassemia trait, or co-existent iron deficiency or Alpha-thalassemia in a case of Beta-thalassemia trait. They need to be investigated further by appropriate tests.
5. Confirmatory molecular tests for Beta-thalassemia traits and abnormal hemoglobin disorders (e.g. HbS, HbE, and HbD), followed by subsequent prenatal diagnosis (If required) are available at our centre.
6. The mentioned P2 value from BioRad Variant-II HPLC system is equivalent of HbA1c value in BioRad D10 system

Disclaimers:

1. The Hb-HPLC is a screening test that detects Beta-thalassemia and other hemoglobin variants. It does not identify Alpha-thalassemia and Silent Beta-thal-assemia carriers. DNA analysis is recommended to rule out Alpha-thalassemia and Silent Beta-thalassemia carriers.
2. The result must be interpreted in conjunction with the complete blood counts (CBC), VitB12 and iron profile of the individual.
3. Each sample received at Lilac Insights' processing centre is handled with the utmost sensitivity and care. All samples received on Sundays and National holidays are stored as per specific guidelines for the respective specimens and processed on the next day.
4. P2 peak in Bio Rad's Variant II HPLC platform represents glycated hemoglobin. It is elevated in uncontrolled diabetes.

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