







lu Aug

### Sir Ganga Ram Hospital

MOLECULAR HEMATOLOGY Department of Hematology

Patient's Name Lab Ref No.

: Ram Krishan : AL33/25

Date Collected Date Received : 28/06/2025 : 30/06/2025 : 02/07/2025

Regn. No Consultant/Unit

: 3576635 : Dr. Manas Kalra Date Reported Age/Sex

: 03Year 3 Months/Male

Ward/OPD

: IPD

Clinical History: A recent diagnosed case of pre B-ALL.

## Acute Lymphoblastic Leukemia Translocation Panel

Specimen: Bone Marrow in EDTA.

Method: Qualitative Multiplex Reverse transcriptase Real time PCR

Translocation	Results
t(9;22)(q34;q11) BCR::ABL1 [p210, p190 & p230]	Negative
t(1;19) (q23;p13.3) TCF3::PBX1	Negative
t(12;21) (p13;q22) ETV6:;RUNX1	Negative
t(4;11) (q21;q23) MLL::AF4	Negative
i(9;11) (p22;q23) MLL::AF9	Negative
t(11;19) (q23;p13.3) MLL::ENL	Negative

Combined Result: The fusion transcripts BCR::ABL1 [p210, p190 & p230], TCF3::PBX1, ETV6::RUNX1, MLL::AF4, MLL::AF9 & MLL::ENL are not detected in the test sample.

Interpretation: The test is intended to detect common gene translocations of significance in Acute

BCR::ABL1/t(9;22)(q34;q11): The transcript found in >95% patients of CML at diagnosis, -5% patients of pediatric B-ALL & 15-30% patients of adults B-ALLs. Presence of this transcript is diagnostic marker of CML whereas it shows unfavorable prognosis in ALL. The test detects both Major (p210) & Minor (p190) breakpoint TCF3::PBX1/t(1;19) (q23;p13,3): Approximately 3% of children/adolescents and 6% of adult ALL harbor this translocation. The t(1:19) translocation had been associated with inferior outcome in the context of antimetabolite-based therapy but the adverse prognostic significance was largely negated by more aggressive multiagent therapies in pediatric ALL. (Mo orman etal, Lancet Oncol 2010; 11(5):429-438)

ETV6::RUNX1/t(12;21) (p13;q22): The transcript is common in pediatric B-ALL (-25%) and less prevalent in adult ALL. The presence of the translocation is associated with favorable prognosis.

MLL::AF4/t(4;11) (q21;q23): The transcript is reported in approximately 50-70% of infants ALL cases, about 5% of pediatric and -3% of adult ALL cases. The presence of this hybrid transcript is an indication of unfavorable prognosis.

-End of report-

Prepared By. Ms. Preeti Nagpal

Col) Jyoti Kotwal andana Arya Sr. Consultant & Head Consultant Scientist Note: All molecular assays have their limitations, imposed by the inherent sensitivity and specificity of the test, the specimen quality and the biological / environmental influences on the phenotypic expressions of any defect identified.



Sir Ganga Ram Hospital





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MC - 2194

#### Clinical Laboratory Services

Department of Pathology (Cytopathology Division)

Name Registration No. Lab Request No.

MASTER RAMKRISHAN . 3576635 4525006229 1P01506821

PAEDIATRIC HEMATOLOGY, ONCOLOGY &

BMT-Dr.Anupam Sachdeva : Dr. Manas Kalra

Referred By Ext. Doctor Specimen

Episode No.

Location

CSF

Age/Sex Ward No. Room No. Location Type : 3 Yrs/Male WARD 6 : 1059 /1059-C GW

In Patient

Collected On

28 JUN 2025 05:03PM

Received On

: 28 JUN 2025 05:07PM

30 JUN 2025 03:10PM Reported On:

Lab No: C-5715/25

Result:

Cytospin CSF smears show occasional mononuclear cell only.

NEG: No evidence of cancer in specimen

Dr. Poojan Agarwal Consultant Cytopathology am

<sup>()</sup> Duplicate tissue sections will be given on payment after a minimum of 48 hours of request.

<sup>2)</sup> Extra charges will be levied, if special tests are required.













Department of Hematology

Phone : 42252105

Lab. Ref. No. Patient's name Regn. No.

FCM-222/2025 Master Ramkrishan

3576635

Consultant/Unit Clinical History

Dr. Manas Kalra

Date received : June 28, 2025 Date Analyzed: June 30, 2025 03yrs/ Male

Age/Sex Ward/OPD

Ward 6/1059-C GW. Case of fever (off and on), progressive pattern since 2 months. 'Acute leukemia.

Mild hepatomegaly. Peripheral blood showed -72% blasts.

Floweytometric Immunophenotyping Report-Single panel of Leukemia/Lymphoma (H193) Complete blood counts: The CBC is - Hb: 6.6 g/dl; RBC: 2.21 mill/µl; PCV: 19.7%; MCV: 89.1 fl; MCH 29.9 pg; MCHC: 33.5 g/dl; RDW: 15.9%; platelets: 81,000/μl, RET-He: 33.9pg, IPF: 3.9% and TLC: 9,370/µl (Neutrophils 04%, lymphocytes 24% and blasts 72%).

Specimen: Bone marrow in EDTA, TLC of flow sample is 1,42,660/ul. (Ref BM-572/2025). CD markers used: ALOT tube- CD45, CD34, CD7, CD19, CD10, CD2, sCD3, CD5, CD38, Cytoplasmic CD3, CD79a & Anti-MPO. Additional markers in B1 and Modified B2 tubes- CD73, CD20, CD81, CD58, CD123, CD33/13, CD22, CD66c and TSLP.

Descriptive summary:

12-colour, 3 laser flowcytometry done on a BD FACSLyric™ flow cytometery

Gating Strategy: Exclusion of doublets on FSC-A vs FSC-H plot followed by exclusion of debris on the FSC-A/SSC. Populations gated on CD45 vs. SSC plot and analysis done on FACSuite RUO v1.6 software.

Immunophenotypic analysis of the bone marrow shows small populations of lymphocytes, granulocytes, monocytes and -94.6% events in the dim to negative CD45 (blast region) with low SSC-A. These blasts gated and analyzed further.

The gated blasts in ALOT tube express moderate CD19 (-99.64%), moderate CD34 (-99.71%). moderate CD10 (-60.86%), moderate CD79a (-86.93%) and moderate to bright CD38 (-99.92%). These are CD2, CD5, CD7, MPO, surface and cCD3 negative.

Further B-ALL specific tubes run. The blasts express moderate CD22 (~75.21%), moderate CD81 (-96.33%), moderate CD58 (-99.99%), moderate CD123 (-83.66%) and moderate CD66c (-43.73%). The blasts are negative for CD73, CD20, CD13 and CD33 and show positive expression of TSLP (-93.31%).

Ploidy studies show DNA index = 0.83 suggestive of low haplodiploid.

The differentiating features from hematogones include dimmer CD 45, brighter CD10, brighter CD58 and expression of CD123 and CD66c on blasts when compared with hematogones. These will be useful for minimal residual disease analysis.

Impression: Together with bone marrow morphology (Ref BM-572/2025), the flowcytometric immunophenotyping features are suggestive of Precursor B-Acute lymphoblastic leukemia. Advised: Cytogenetic and molecular studies for common B-ALL mutations including BCR: ABLI.

Dr. Pallavi Prakhar

Consultant

Dated: June 30, 2025

Mauliker --Dr. Maulika Agarwal

Sr. Resident

Sr. Consultant & chairperson











Department of Hematology First Floor, SSRB building Phone: 42252105

#### Bone Marrow Aspiration Report (H 190)

Ref. No.

: BM-572/2025

Dated

: June 28, 2025

Patient's name

: Master Ramkrishan

Age/Sex

: 03y /Male

Regn. No.

: 3576635

Ward/OPD

: Ward 6/1059-C GW.

Consultant/Unit Clinical History

: Dr. Manas Kalra

: Case of fever (off and on), progressive pattern since 2 months. ?Acute

leukemia. Mild hepatomegaly.

Bone marrow aspiration and imprint smears are provided.

Particulate and hypercellular bone marrow aspirate shows near total replacement by blasts of small to intermediate size, having high N;C ratio, fine dispersed chromatin, inconspicious nucleoli and scant basophilic agranular cytoplasm. Normal hemopoietic elements are markedly reduced. Imprints are cellular and show near total replacement by blasts.

Cytochemistry:

Myeloperoxidase stain: Blasts are negative for MPO stain (Internal control positive). [Myelogram: Lymphocytes: 01%, myelocytes: 01%, blasts: 97% and erythroid cells: 01%]

Peripheral Blood Film (Specimen-EDTA blood)

The CBC is - Hb: 6.6 g/dl; RBC: 2.21 mill/µl; PCV: 19.7%; MCV: 89.1 fl; MCH: 29.9 pg; MCHC: 33.5 g/dl; RDW: 15.9%; platelets: 81,000/µl, RET-He: 33.9pg; IPF: 3.9% and TLC: 9,370/µl (Neutrophils 04%, lymphocytes 24% and blasts 72%).

Red blood cells are normocytic normochromic. Reticulocyte count is 0.22%. Absolute reticulocyte count is 4,900/µl. White blood cells show ~72% circulating blasts with similar morphology as in bone marrow. Platelets are reduced.

Impression: Peripheral blood and bone marrow morphology is suggestive of Myeloperoxidase stain negative acute leukemia. Together with flowcytometry immunophenotyping report (FCM- 222/25), findings are consistent with Precursor-B-Acute lymphoblastic leukemia. Kindly wait for bone marrow biopsy for comment on additional pathology and advise molecular studies for common ALL mutations.

Prof. Dr. Sabina Langer

Vice Chairperson & Sr. Consultant

Dated: June 30, 2025

Fellow, Hematopathology

. (Col) Jyoti Kotwal Chairperson & Sr. Consultant



# Muskurata Bachpan Trust

Ref no....!!.....

Date 05-07-2025

मध्या जी; मुख्युगता वचपन द्रस्ट

लोडी सराय ,महूरीली - 110030

महोदय, में प्रमोद कुमार 80 सल्लू रिंट, उत्तर प्रदेश वा निवासी हूं। मेरा विव रामकृत्म निवासी हुं। मेरा विव रामकृत्म निवासी हुं। मेरा विव रामकृत्म निवासी हुं। मेरा विव रामकृत्म निवासी हुं नो केवल परिवार नामाने जित्तम ही व्यमाता हूं मेरे वन्ते के काम हुं को केवल परिवार नामाने जित्तम ही व्यमाता हूं मेरे वन्ते वि ०६ वे ०८ वे ०८ मदीने में नाहिल् हाजा जो हमीरे जिन्ने असंम्थत हैं अततः मुझे मेरे वन्ते वे उत्ताल वे आविवश्वार अपना व्यत बेचना पड़ेगा अभी भी जो इलाज में व्यवा यहा हूं तो भी वस कजी आदि लेवर ही मल रहा है निक्शतापूर्ण मेरा आपवा एन विश्वा पढ़ेगा भेरे वन्ते वे इलाज वे जाविवश्वार पन विश्वार प्रवे अभी होने वे अनुभेश हैं अता अभी निवा हलाज वे जिल्ला राम कि अनुभेश हैं अता अभी केवा की आपवा एन विश्वार पन विश्वार पन

स्पन्भावाद,

प्राथी

Pramod Kumar



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# भारतं सरकार Government of India

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नामांकन क्रमांक / Enrollment No : 2728/21018/23317

To

रामकृष्ण

Ramkrishan

C/O: Pramod Kumar,

kalu kuwan,

VTC: Banda,

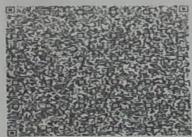
PO: Banda,

Sub District: Banda, District: Banda,

State: Uttar Pradesh,

PIN Code 210001

MC273643531FL



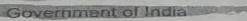
आपका आधार क्रमांक / Your Aadhaar No. :

8135 4355 7785

मेरा आधार, मेरी पहचान



भारत सरकार







रामकृष्ण Ramkrishan जन्म तिथि / DOB 23/03/2022 पुरुष / Male

यह आधार 5 वर्ष की उम्र तक ही वैच है

8135 4355 7785

मेरा आधार, मेरी पहचान

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