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COVER

# DEPARTMENT OF PATHOLOGY

LADY HARDINGE MEDICAL COLLEGE & SMT. S.K. HOSPITAL, NEW DELHI

## CYTOLOGY REPORT FORM

Name of Patient..... Aryan ..... Sex 5/1x Age M Regd. No. 30218

Hospital LHMC Ward 1/2 CS Dr. In-Charge .....

Case No 622/23 Smear No 1497-98/23

Received on 12/12/23 Reported on 12/12/23

### Investigation asked for :-

CSF for Malignant cytology (F-1497-98/23)

Gross: Received 0.5 ml of clear colorless fluid  
TLC - 05 cells / cmm

Report :-  
DLC - 19 Mononuclear, 02 Polymorphs (out of 20 cells)

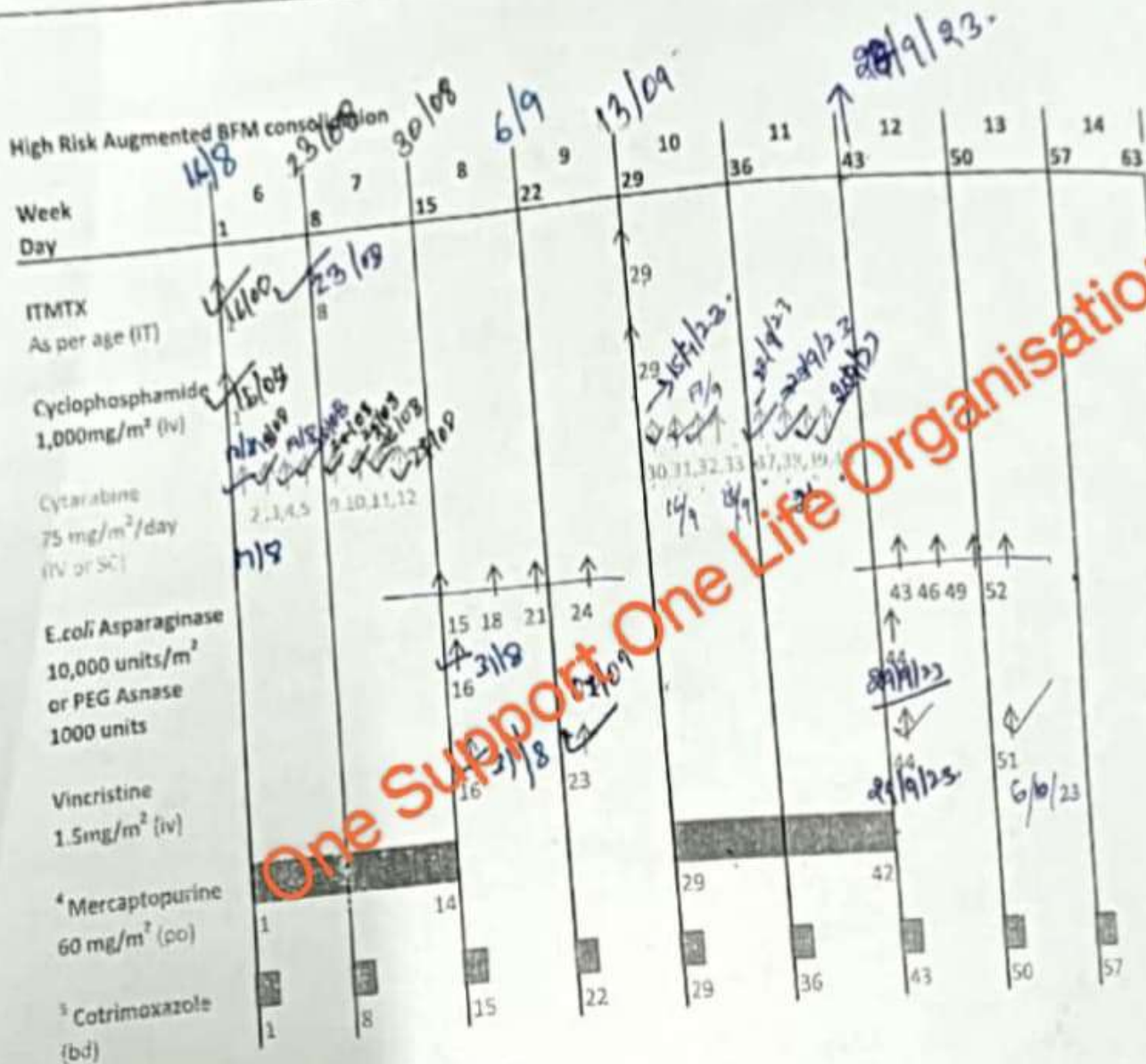
Microscopy: cytospin preparation shows many lymphocytes and occasional macrophage

No atypical cell / blast cell seen on the preparation examined



Argan  
 Sy/M  
 B-cell ALL (HR)  
 ICICLE ALL-14

BSA = 0.77m<sup>2</sup>.



BMA + MRD  
 Aut on 25/10/23

<sup>4</sup> Mercaptopurine: 60mg/m<sup>2</sup>/day once at night.

<b>Lab Ref. No</b> : SDA230057991	<b>Centre</b> : DR DANGS LAB
<b>Name</b> : MASTER. ARYAN	<b>Client</b> : CAN KIDS
<b>Age / Gender</b> : 5 Y 0 M 0 D /MALE	<b>Collection Time</b> : 10-08-2023 05:48 PM
<b>Ref. By Dr</b> : SELF	<b>Reporting Time</b> : 11-08-2023 05:27 PM
	<b>Report Status</b> : Final Report

**DEPARTMENT OF HAEMATOLOGY****MINIMAL RESIDUAL DISEASE (MRD)**


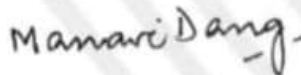
Flow ID: 2308F149M101

**Clinical History:** Case of B-ALL/HR. End of induction MRD under evaluation.**Specimen:** Bone marrow in EDTA and Heparin.**TLC in flow-cytometry bone marrow specimen** -23,810/ul.**CD markers used:** Surface: CD45, CD19, CD10, CD34, CD38, CD58, CD73, CD86, CD20, CD123, CD81 and Syto13**Descriptive summary:**

8-colour, 3-laserflowcytometry done on a BD FACS CANTO™ II flow cytometer. Analysis was done on FACS Diva™ v8.0.3 software.

**Gating Strategy:** The tubes were run till empty/ acquisition of a minimum 2.0 million events. In each tube, 2 million events could be acquired. Exclusion of doublets on FSC-A vs FSC-H plot followed by exclusion of debris on the FSC vs SSC was done. Populations were gated on CD45 vs CD19 plot. Cells with abnormal expression of surface markers (expression pattern different from normal 'B' precursors and LAIPs) were looked for. The final MRD population is calculated with respect to nucleated cell population obtained from Syto13 tube.**Total CD19 positive events:** 2720.The bone marrow immune-phenotyping shows a populations of **leukemic blasts constituting ~0.17% of all cells and show dim CD45, moderate CD19, CD86, CD123, CD10, moderate to bright CD73 and negative CD38, CD58 with loss of CD81.****Impression-** The flow-cytometric immune-phenotyping analysis of bone marrow specimen in a case of B-ALL shows **presence of Leukemic Blasts (~0.17%). Minimal residual disease is positive (≥0.01%).**

Please correlate with clinical and therapeutic profile.

**\*\*\* End Of Report \*\*\*****DR. SHIKHA GARG**  
M.D.(PATHOLOGY)**DR. MANAVI DANG**  
M.D. (PATHOLOGY)

ALL

Aryan

Fever x 12 Days

- Pallor

Initial - TLC  $\rightarrow$  45800

DLC  $\rightarrow$  488%

PLT  $\rightarrow$  12,000

L  $\rightarrow$  8 cm

S  $\rightarrow$  6 cm

BMA - NO (434/23)

- 94% Blast

Flow  $\rightarrow$  CALLA Positive B cell ALL

Cytogenetic  $\rightarrow$  Hyperdiploidy XY +6, +10, +14 +2, +21 / 46, XY [3]

D<sub>8</sub> - Absolute blast  $\rightarrow$  62% (in 200 cells) - ABC = 1302

D<sub>8</sub> - CSF Cyto  $\rightarrow$  TLC - 0 cells

D<sub>35</sub>  $\rightarrow$  Bone Marrow - in Morphological Remission  
MRD positive (0.17%)

To repeat BMA + MRD at end of consolidation

$\rightarrow$  Neg (at the end of consolidation)



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**Gating Strategy:** The tubes were run till empty acquisition of a minimum 2.0 million events. In each tube, 2 million events could be acquired. Exclusion of doublets on FSC-W vs FSC-H plot followed by exclusion of debris on the FSC vs SSC was done. Populations were gated on CD45 vs CD19 plot. Cells with abnormal expression of surface markers (expression pattern different from normal 'B' precursors and L-ALPs) were looked for. The final MRD population is calculated with respect to nucleated cell population obtained from Syto13 tube.

Total CD19 positive events: 2720.

The bone marrow immune-phenotyping shows a populations of leukemic blasts constituting ~0.17% of all cells and show dim CD45, moderate CD19, CD86, CD123, CD10, moderate to bright CD73 and negative CD38, CD58 with loss of CD81.

**Impression-** The flow-cytometric immune-phenotyping analysis of bone marrow specimen in a case of B-ALL shows presence of Leukemic Blasts (~0.17%). Minimal residual disease is positive (≥0.01%).

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