





रोग का संक्षिप्त विवरण / Brief Clinical History & Examination :

W/O B-cell ALL (HR) a DIP

fever x 1 day  
cough x 1 day  
pain abd - 4 x 5 dg

↓  
ini cefaprazone / sulbactam  
amikacin

WBC - 11000

transfused 120ml RBC

fever spikes persisting

- 103°F  
(high grad)

ANC = 000

CE/DIP (Dr. Pankaj Kumar)

(added) 9mg G-CSF

↓  
fever spikes persisting x 3 days

↓  
amikacin upgraded to teicoplanin

↓  
fever spikes ⊕ ⊕ x 1 day

(Added) meropenem

(Added) liposomal amphotericin-B

↓  
ANC = 1230 → 7000 k (G-CSF x 5 days)

↓  
stopped G-CSF

↓  
apixim x 2 days

↓  
chemo drug (d1)

cyclophosphamide → gues  
cytarabine 1<sup>st</sup> dose → gues  
(8/3/23)

जाँच / Investigation :

Study

Small sample

# KALANATHI SARAN CHILDREN'S HOSPITAL

12th Mile, Old, 4<sup>th</sup> Cross, Bangalore 56001, Bengaluru Sahasr Marg, New Delhi-110001

## CLINICAL HAEMATOLOGY LAB

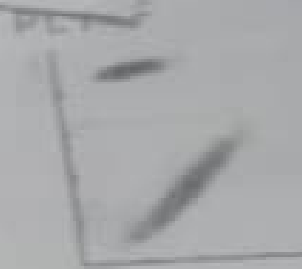
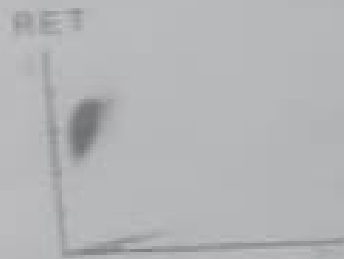
Reg No: Vedant      Age: 2y      Sex: M  
 LB No: 6430      Consultant: Dr. V. Srinivas  
 Date: 12/1/23      Location No: \_\_\_\_\_  
 Nature of Investigation: \_\_\_\_\_

Diagnostic Code: CPC      EDTA/CPAN/HEPARIN/CL

Signature of \_\_\_\_\_  
 Date of Report \_\_\_\_\_

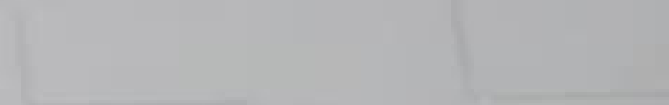
INCOMPLETE FORM IS NOT ACCEPTABLE

Parameter	Value	Reference Range
WBC	15.0	10 <sup>9</sup> / L
Neutrophils	85%	50-70%
Lymphocytes	15%	20-40%
Platelets	80000	150,000 - 450,000
Hb	10.5	12.0 - 15.0
Hct	32	35 - 45
MCV	103	80 - 100
MCH	10.2	27 - 34
MCHC	9.9	32 - 36
RDW	13.5	11.5 - 14.5
PLT	80000	150,000 - 450,000



RBC

PLT



WBC IP Message  
 Neutropenia  
 Lymphopenia  
 Leukocytopenia  
 Shifts/Abn Lympho?  
 Left Shift?  
 Atypical Lympho?

RBC IP Message  
 Anemia

PLT IP Message

क्रिया गया उपचार / Treatment Given :

- ① ampicillin + sulbactam
- ② Mucosa-
- ③ neoplanin
- ④ mupirocin
- ⑤ diposoneel ampho-B
- ⑥ Syp. septican
- ⑦ candid MP
- ⑧ chlorhexidine MW } 100ml
- ⑨ Syp. Potilla
- ⑩ G-MP

छुट्टी के समय परामर्श / Advise on Discharge :

- ① T. GMP (50mg) 2/3<sup>rd</sup> tab OD
- ② T. lantol TR 15mg OD BRT
- ③ Syp. septican 6ml BID <sup>Sat</sup> - M
- ④ candid MP
- ⑤ chlorhexidine MW } LAQID

(N/U) - 1/2/23

छुट्टी के बाद ओ.पी.डी. में ..... / ..... पर सुबह 9.00 बजे कमरा नं. .... में आएँ।

छुट्टी के बाद ..... स्पेशल क्लिनिक में 2.00 बजे कमरा नं. .... में आएँ।

अगला टीकाकरण ..... तारीख .....

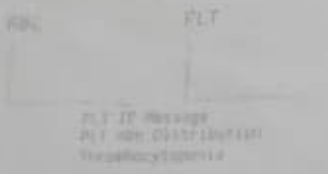
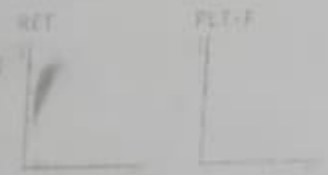
*[Signature]*

Parameter	Value	Reference Range
WBC	11.2	4.0 - 10.0
Hb	11.2	12.0 - 16.0
Hct	32.1	37.0 - 47.0
MCV	104	80 - 100
MCH	10.0	27 - 34
MCHC	9.6	32 - 36
RDW	13.8	11.5 - 14.0
PLT	149	150 - 400

576/23  
 Vedant  
 2 1/2 yr / M  
 13290  
 ECH



2PS + 3BMA  
 + 1HP



P/S - Smears show thrombocytopenia  
 Red cells are normochromic normocytic  
 with mild anisocytosis  
 Occasional atypical cells are seen.

DLC - Myeloid cells  $\frac{L}{95}$   $\frac{N}{2}$   $\frac{NBCL}{0}$  / issue

BMA - Smears show no particles however  
 are cellular showing presence of  $\frac{96\%}{9}$  blasts  
 which are 1.5-2.5 times the size of  
 small mature lymphocytes with scant  
 agranular cytoplasm with condensed nuclei  
 (few showing indentation) coarse chromatin  
 0-1 inconspicuous nucleoli  
 Erythroid, myeloid & megakaryocytic  
 series are markedly suppressed.

DLC blasts  $\frac{96}{95}$   $\frac{NBCL}{0}$   $\frac{L}{0}$  MPO-Negative

Imp: - MPO-Negative Acute leukemia

Adv: - Immunophenotyping

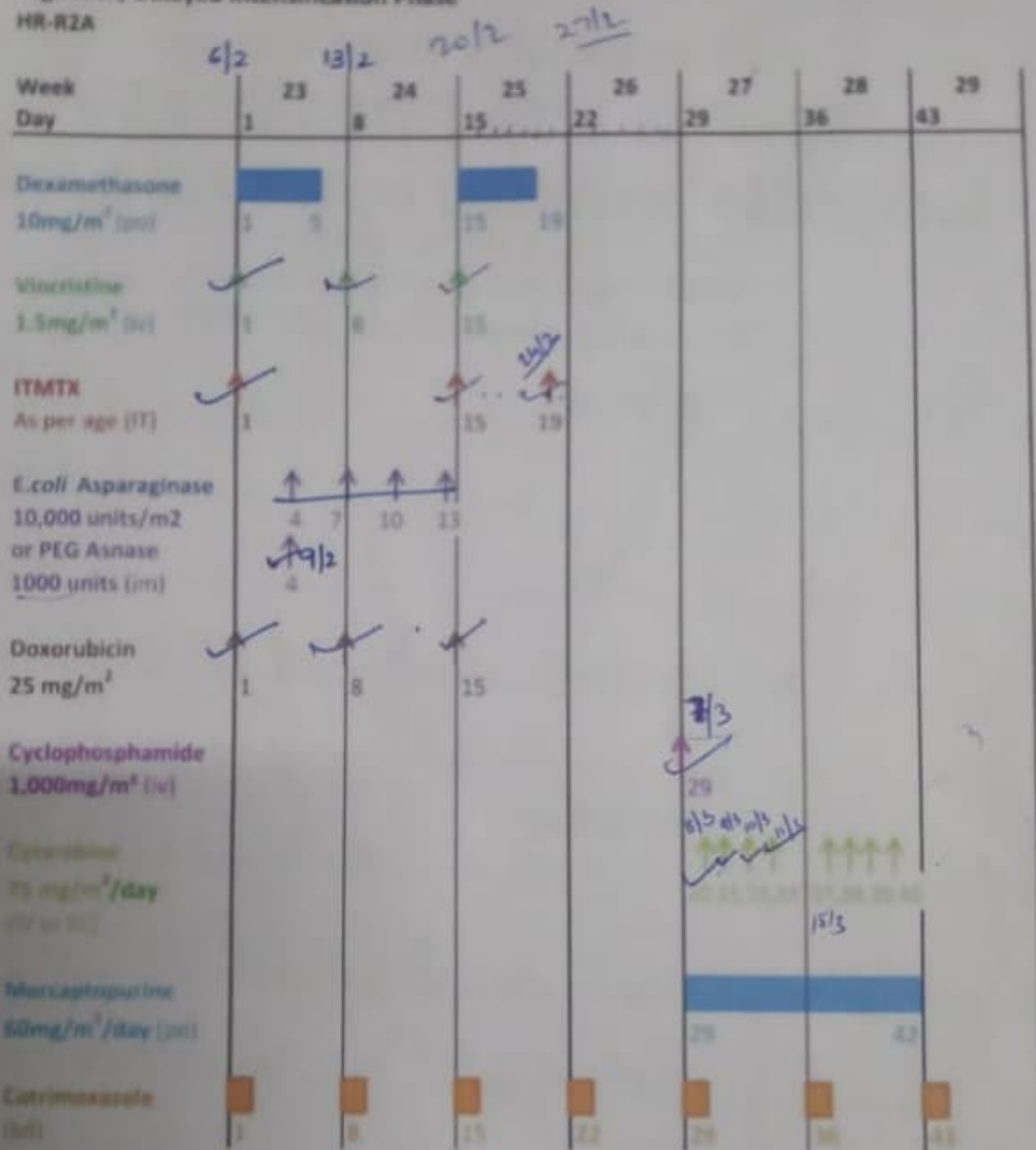
Jyotsna  
 20/7/2022

Dr. Jyotsna  
 Professor  
 20/7/2022

Vedent

BJA 0.55m<sup>2</sup>

High Risk, Delayed Intensification Phase  
HR-R2A



DRAFT

Cell ALL (HR)  
 CP completed.

Vedant (3y1m)  
 wt. - 16 kg  
 BSA - 0.49 m<sup>2</sup> ICG# ALL-24

High Risk Interm Maintenance Phase, NDMT2

(Started on 10/11/22)

Week	16/11	15/11	30/11	29/11	27/11	25/11	23/11	21/11	19/11	17/11
Day		8	23	22	20	18	16	14	12	10
MTX	✓		✓		✓		✓		✓	
40 mg/m <sup>2</sup> (D)	1		10		20		40		40	
IV MTX	✓		✓		✓		✓		✓	
30 mg/m <sup>2</sup> (D)	1		15		25		40		40	
Folic acid	✓		✓		✓		✓		✓	
15 mg/m <sup>2</sup>	2-8		16-17		10-11		14-15		14-15	
Mercaptopurine	[Redacted]									
25 mg/m <sup>2</sup> (D)	1									

BMA & MRD done on 9/11/22

MRD - Neg.

BMA - Morphological  
 Admission seen.

10/1/22

→ mom with u  
 firm.

(OGB)

14/12/22 to 19/12/22

admitted w/ febrile  
 neutropenia

DRAFT NOT FOR CLINICAL USE



- Liver > mid-umbilicus. yes
- Spleen > mid-umbilicus NO
- LAP > 5 mm
- TPT: pos B cell/ T cell/ other B cell

- o D 35 Marrow
- o D 35 MRD
- o Risk category

FINAL DIAGNOSIS B cell ALL (Sub type if any) \_\_\_\_\_

- Date treatment started: \_\_\_\_\_
- o ALL Induction SR (SR/IR/HR). SR

- RISK ASSESSMENT: (post induction).....
- Final protocol:.....

Sample Collection Date	31/08/2022 16:28	DDL Center	Dr.Dangs Lab
Lab Ref. No.	220173944		
Name	MASTER. VEDANT SINGH	Age / Sex	2 Yrs / MALE
		Inst.ReferredBy	CAN KIDS

**FLOW CYTOMETRY**

EOI

**MINIMAL RESIDUAL DISEASE (MRD)**
**Flow ID: 2208F132M093**
**Clinical History:** Case of B-ALL/SR; Bone marrow done for end of induction MRD evaluation.

**Specimen:** Bone marrow in Heparin.

**TLC in flow-cytometry bone marrow specimen** -29,840/uL.

**CD markers used:** Surface: CD45, CD19, CD10, CD34, CD38, CD58, CD73, CD86, CD66c, CD20, CD123 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:** 3,883.

The bone marrow immune-phenotyping shows a populations of leukemic blasts constituting ~0.040% of all cells and show heterogeneous dim to negative CD45, moderate CD10, CD19, CD73, CD86, CD123, dim to negative CD20, dim to moderate CD58 and are negative for CD34, CD38 and CD66c.

**Impression-** The flow-cytometric immune-phenotyping analysis of bone marrow specimen in a case of B-ALL shows presence of ~0.040% Leukemic Blasts. Minimal residual disease is positive (≥0.01%).

Please correlate with clinical and therapeutic profile.

# DEPARTMENT OF PATHOLOGY

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

## CYTOLOGY REPORT FORM

Name of Patient Vedant Sex 24/male Age 13230 Regd. No. 13230

Hospital Unit - 2 Kalanjarli Ward                      Dr. In-Charge                     

Case No 2177 Smear No 7402-03/22

Received on 3/8/22 Reported on 3/8/22

Investigation asked for :-

CSF for malignant cytology (7402-03/22)

Specimen - Received 0.5 ml of clear fluid  
TTC = 1 cell / ml

Report :-

Microscopy - Smears shows occasional  
lymphocytes only. No atypical cells seen

Ajay Mishra  
(FR)

Dr. Pr  
Prof  
3/8

Resp System June  
CVS

Provisional/Clinical Diagnosis Lymphoma

Basic Hematology Data (At admission)

- Hb 7.97 gm/dl
- Hct 6.910 /mm<sup>3</sup>
- DLC: N 3% L 93% E 0.07% M 3.01% B 0.07% Myelo 0% Meta 0%  
Blasts 0% n RBC 0 /100wbc
- Platelets 48.4 x 10<sup>3</sup> /mm<sup>3</sup>
- Smear Exam Thrombocytopenia, Atypical cells  
DLC - Atypical cells, 03 Lac No, 2 n RBC/100wbc
- BMA (No 516/22) Report  
96% blasts which are 1.5 - 2.5 times the  
size of small mature lymphocytes.
- Morphological Subtype CLL/A ⊕ B cell ALL
- Special Stains
  - MPO ⊖
  - PAS.....
  - Peroxidase.....
  - Other.....
- Immunophenotyping CLL/A ⊕ B cell ALL  
for CLL/A ⊕ B cell ALL
- Chromosomal studies
  - Numerical.....
  - Structural ⊖
  - BCR-ABL
- BM biopsy (No) Imprint report ⊖
- BM Biopsy report ⊖

- CSF \_\_\_\_\_ CNS Status \_\_\_\_\_
- FNAC (No. \_\_\_\_\_)
- LN Biopsy (No. \_\_\_\_\_)
- D & PS blasts (exact number) \_\_\_\_\_
- D 14 marrow: (write percentage of blasts) **8 96% blasts**

• OTHER TESTS

- Mx test
- HIV NK
- HbsAg \_\_\_\_\_
- HCV undetected
- LFT: Bil T 0.20 0.12 SGOT 37 SGPT 7 ALP 322
- KFT: Urea 3.2 Creatinine 0.17 Uric Acid 5.7
- S Calcium 10.6 Phosphorus \_\_\_\_\_
- CXR < V2 not study
- Skeletal Survey \_\_\_\_\_
- USG Abdomen \_\_\_\_\_
- CT
- PET Scan (date)
- RISK ASSESSMENT:

o Initial:

- Age: < 1 yr / > 1 - < 10 yr / > 10 yr
- WBC (presentation) < 50,000/mm<sup>3</sup> 50,000-100,000/mm<sup>3</sup> > 100,000/mm<sup>3</sup>
- Bulky disease:

Sample No. VEDANT 6420 U2  
Patient ID  
Name  
Sample Comment

Ward  
Rack

Position 12/19/17  
Doctor  
Birth  
Nickname

### Positive

Diff. Morph. Count

WBC	0.61	[10 <sup>3</sup> /uL]
RBC	2.47	[10 <sup>6</sup> /uL]
HGB	5.9	[g/dL]
HCT	17.7	[%]
MCV	81.6	[fL]
MCH	27.2	[pg]
MCHC	33.3	[g/dL]
PLT BF	98	[10 <sup>3</sup> /uL]
PDW SD	43.3	[fL]
RDW CV	14.6	[%]
RDW	14.9	[fL]
MPV	12.5	[fL]
P-LCR	42.3	[%]
PCT	0.13	[%]
WBC	0.00	[10 <sup>3</sup> /uL]
BLT	0.37	[10 <sup>3</sup> /uL]
LYMPH	0.21	[10 <sup>3</sup> /uL]
MONO	0.02	[10 <sup>3</sup> /uL]
EO	0.00	[10 <sup>3</sup> /uL]
BAO	0.01	[10 <sup>3</sup> /uL]
EO	0.01	[10 <sup>3</sup> /uL]
RET	0.32	[%]
RET	0.0	[%]
LEP	100.0	[%]
RET	0.0	[%]
RET	0.0	[%]
RET-He	10.2	[pg]
IPF	9.2	[%]

0.0	[%]
50.7	[%]
34.4	[%]
3.3	[%]
0.0	[%]
1.6	[%]
1.6	[%]

0.0069 [10<sup>6</sup>/uL]

WDF



RET



RBC



WBC-BF	[10 <sup>3</sup> /uL]
RBC-BF	[10 <sup>6</sup> /uL]
PLT	[10 <sup>3</sup> /uL]
PLT	[10 <sup>3</sup> /uL]
TC-BF#	[10 <sup>3</sup> /uL]

[%]  
[%]

WBC IP Message

Neutropenia

Lymphopenia

Leukocytopenia

Blasts/Abn Lympho?

Left Shift?

Atypical Lympho?

RBC IP Message

Anemia

PLT

vedant (initial)

HR

### Acute lymphoblastic Leukaemia

Age at Diagnosis: 24 months

Presentation:

Initial TLC: 6910

CXR: >1/3 Yes/No

Liver: Bulky Yes/No

Spleen: Bulky Yes/No

B/L testis: normal/Enlarged

✓ Bone Marrow/Peripheral Blood: 95% blasts

✓ Flowcytometry/IPF: CD45 ⊕ Dull ALL c absent CD13 expression

✓ Cytogenetics: No major karyo abnormal

1<sup>st</sup> CSF: TLC/DLC/RBCs all 1 cell/ul

✓ Malignant cells - Not seen

✓ Day 8 Absolute Blast Count: 3000

Day 35: Bone Marrow no comment on remission

✓ MRD → ⊕

EOC (F-ALL/Refractory): Bone marrow - No Blast

✓ MRD - Neg

Initial Risk SR

Final Risk HR (11/10 MRD)



Ref. No.: .....

Date : 18-03-2023

सेवा में,

संस्थापक महोदया,  
किल्कारी ट्रस्ट,  
नई दिल्ली,  
महोदया

मैं किरण सिंह वेदांत की माँ आपसे विनयी करती हूँ की मेरा बच्चा एलस कैंसर से पीड़ित है। हम गोरखपुर के रहने वाले हैं। और एक अंगराल का बेट हूँ। अस्पताल आना पड़ा है। हमारा परिवार एक किसान परिवार है और इतना खर्च हमारा सामर्थ्य नहीं है। अगर आपके और ही आर्थिक सहायता मिल जायेगी तो हमारा परिवार जीवन भर आपका आभारी रहेगा। कृपया आपके हमारे बच्चे को आशीर्वाद दें। हमारा परिवार जीवन भर आभारी रहेगा।

प्रार्थी माँ।

किरण सिंह

