

Adult Acute Lymphoblastic Leukemia in 31 year old Lady. “Case study”

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Source of Support :- None

Conflict of Interest :- None

Clinical History

Patient :- 31 years old Lady.

Complaints :- Weakness, laziness, multiple lymphadenopathy

History of Present illness :-

Multiple lymphnodes, increasing in number and size observing since one months before coming to family physician. Then feeling of weakness and laziness.

Family physician Advice complete Blood count (CBC), FNAC of lymph Nodes

Previous Medical & family history – nothing significant.

Physical Examination :- Multiple Lymphadenopathy,

Mild to moderate splenomegaly

No Hepatomegaly.

Key Words :- Acute Lymphoblastic Leukemia, Flow Cytometry, BALL, Adult rate case

FNAC from lymphnodes – suggestive of reactive lymphadenitis.

CBC Report

Haemoglobin – 8.3 gm/dl

Total leucocyte count 1880/cmm

Different leucocytes count

Polymorphs – 40 %

Lymphocytes – 56 %

Monocytes – 04 %

RBC Count – 2.64 Millions / cmm

Petelact count – 4.62 Lac/cmm

Coagulation profile – PT, PTTK, INR – Normal

LFT, KFT – Normal

HIV, HBSAg, HCV – Negative

Bone Marrow Reports

With adequate cellularity

Blasts cells seen **80 %**

Flow cytometry :-

These Blasts (45 %) express CD 10, CD 19, CD 38, CD 58, CD 79a, HLA DR

All these blasts – negative fare CD 1a, CD3, cCD3, CD4, CD5, CD7, CD8, CD13, CD14, CD20, CD33, CD34, CD56, CD73, CD18, CD117, CD123, CMP0,

The above findings are consistent with the diagnosis of acute lymphoblastic leukemia.

B-cell lineage. The patient is get admitted for chemotherapy, follow up is going on, in Nagpur Maharashtra).

Acute lymphoblastic leukemia is very rare in adults. In adults B-cell type Acute lymphoblastic Leukemia, survival rate is 2 to 3 yrs., even after taking proper chemotherapy.

Acute lymphoblastic leukemia occurs when a bone marrow cell develops errors in its DNA.

Questions :-

- 1) Is Acute lymphoblastic Leukemia common in adults?
- 2) Why is a bone marrow study advised in this case?
- 3) Is flow cytometry necessary to reach a final diagnosis?
- 4) What is the survival rate of adult patients with acute lymphoblastic leukemia B cell type?

Answer :-

- 1) No. Acute lymphoblastic leukemia is very rare in adults.
- 2) Considering a low white blood cell count, a bone marrow study may be advised.
- 3) Flow cytometry is necessary to differentiate types of leukemia.
- 4) Mostly 2 to 3 yrs. after chemotherapy.
- 5)

References

- [1]. Hoffbrand's Essential Haematology
- [2]. De Grych's Clinical Haematology in Medical Practice
- [3]. A Textbook of Immunology and Immunotechnology by Annadurai.
- [4]. Leukemia & Related Disorders

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