

## **New study on Blood cancer**

### **Why in news?**

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A Study at DNA Fingerprinting and Diagnostics, Hyderabad, have come up with new insights on Leukemia.

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### **What is Leukemia?**

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- Leukemia is cancer of the blood or bone marrow which produces blood cells.
- A person who has leukemia suffers from an abnormal production of blood cells.
- There are several stages of maturation in a white blood cell's lifespan.
- Acute leukemia crowds out the good cells more quickly than chronic leukemia.
- Treatment requires holistic approach of financial support, psychological support, and a patient tracking system.

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### **What is the status of leukemia in India?**

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- Acute leukemia cases are recorded across India.
- There are nearly 25,000 children diagnosed with cancer in India every year and around 9000 of these have leukemia.

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- There would be 90,000 children with leukemia in a decade in India.  
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- The data of those children who are treated are missing.  
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### **What are the findings of the study?**

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- Mixed Lineage Leukemia (MLL) protein is closely associated with leukemia (blood cancer) in children and adults.  
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- The protein plays a crucial role in cell division by regulating chromosome segregation.  
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- The absence of MLL itself gives rise to genomic instability and makes the cell prone to cancer.  
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- Efforts has been made to discover the essential cellular functions of MLL.  
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- Kinesin 'motor' protein Kif2AK is responsible for organizing MLL cells and associated with several kinds of cancers.  
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### **What is the way forward?**

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- The study helps in clear understanding the blood cancer.  
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- The genome editing techniques can be carried out with a wide knowledge of MLL protein cells.  
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- This breakthrough findings will help the Indian pharma sector to introduce new life saving drugs.  
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## Quick fact

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- DNA fingerprinting is a method used to identify an individual from a sample of DNA by looking at unique patterns in their DNA.

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- DNA fingerprinting was to extract DNA from a sample of human material, usually blood.

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- This technology is globally used in solving the crimes.

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**Source: Business Line**

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