CancerSpot

Prelims: *Current events of National and International Importance| Science & Technology*

Why in News?

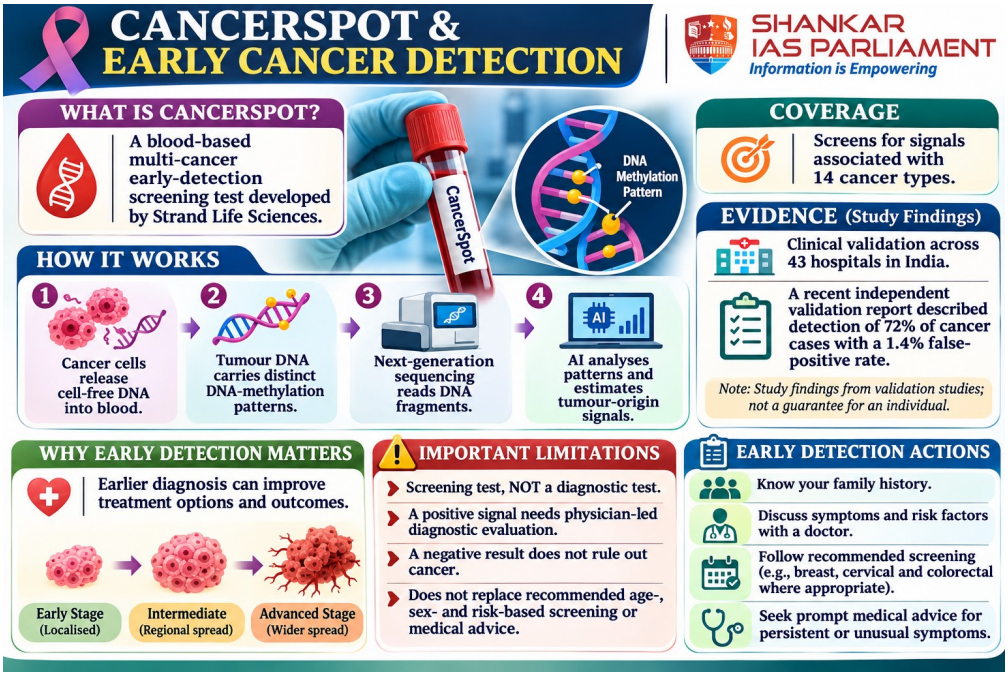
Recent, Pan-Indian study shows CancerSpot blood test detects 72% of cancers across 14 types with 1.4% false positives, using DNA methylation and AI.

Cancerspot is a non-invasive blood test developed by Strand Life Sciences that screens for **14 types of cancer**—including lung, breast, colorectal, liver, stomach, kidney, and ovarian cancers—using cell-free DNA methylation sequencing and artificial intelligence.

- **Technology –** Analyzes tumor-related DNA methylation patterns in a 20 ml blood sample and uses machine learning to predict potential tissue of origin.
- **Recent Study Results –** A pan-Indian study reported that CancerSpot detected cancer in **72%** of cases across 14 cancer types with a **1.4%** false-positive rate.
- **Validation Data –** Earlier cohort validation reported sensitivities around **78%–79%** for early-stage (Stage I) cancer at roughly **97%** specificity, with tissue-of-origin accuracy around **77%–78%** in Stage I, as highlighted in coverage of Indian Study Finds CancerSpot May Improve Early Cancer Detection.
- **Cost & Logistics –** Offered through Strand Life Sciences at Rs.**25,000** (reduced from Rs.33,000) with home sample collection and reporting in about **21 days**.

Important Limitations

- **Screening, Not Diagnosis –** A positive result indicates a potential cancer signal and requires follow-up diagnostic tests (such as imaging, endoscopy, or biopsy) to confirm.
- **Does Not Replace Standard Checks –** Multi-cancer blood tests complement—rather than replace—proven routine screenings like mammograms, Pap/HPV tests, and colonoscopies.



Reference

[The Hindu| CancerSpot]

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