

Transforming Radiation Oncology through Varian Halcyon HyperSight

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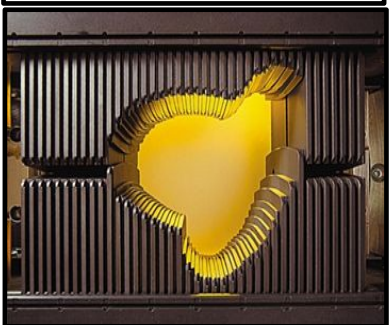


Evolution

2D and 3D – before 2000

Initial use of 2D radiotherapy focused primarily on tumor targeting accuracy.

Multi Leaf Collimator
Mid 1990's



IMRT Introduction-2000's

IMRT emerged, enabling more precise dose delivery while minimizing surrounding healthy



IGRT Development – Mid 2000s

IGRT introduced real-time imaging allowing for adjustments during treatment sessions for accuracy.



Adaptive Therapy -2013

Adaptive therapy revolutionized treatment planning by adjusting for anatomical changes throughout the

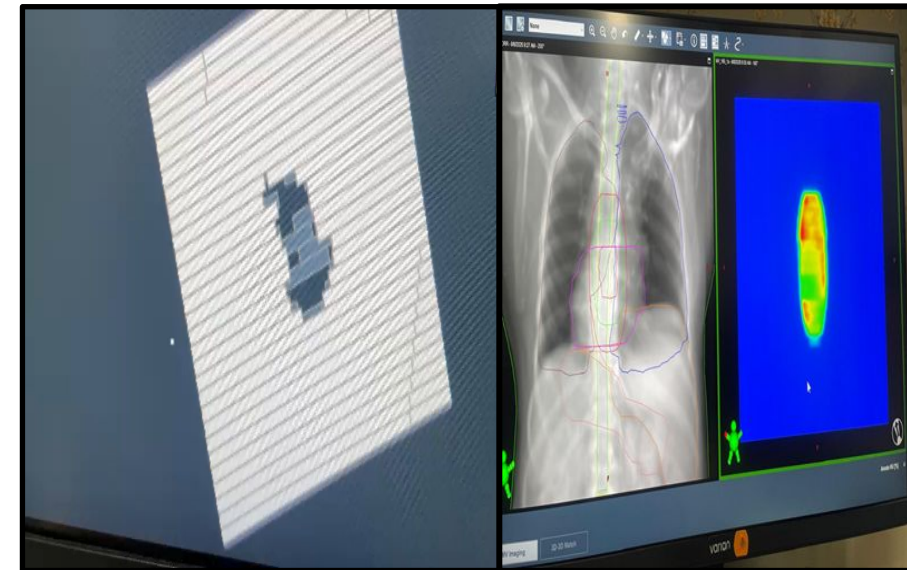


AI Integration -2020's

AI integration began enhancing planning efficiency and treatment personalization in radiotherapy workflows.

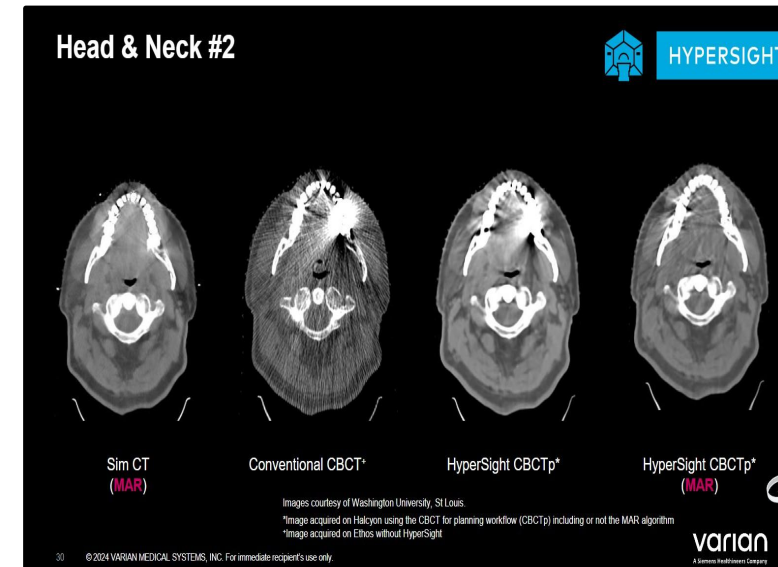
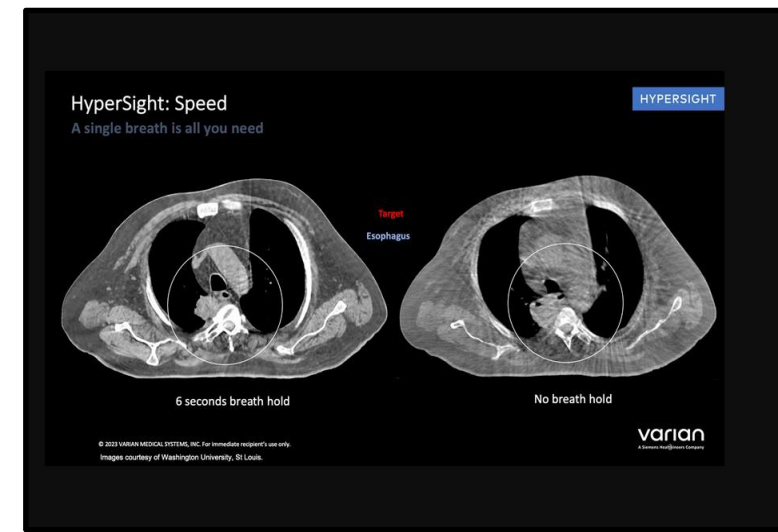
Meet Varian Halcyon HyperSight

- Engineered for speed, simplicity, and safety.
- Dual-layer MLC for sharper beam modulation.
- Automated workflow and streamlined QA.
- 4× faster setup with integrated imaging.



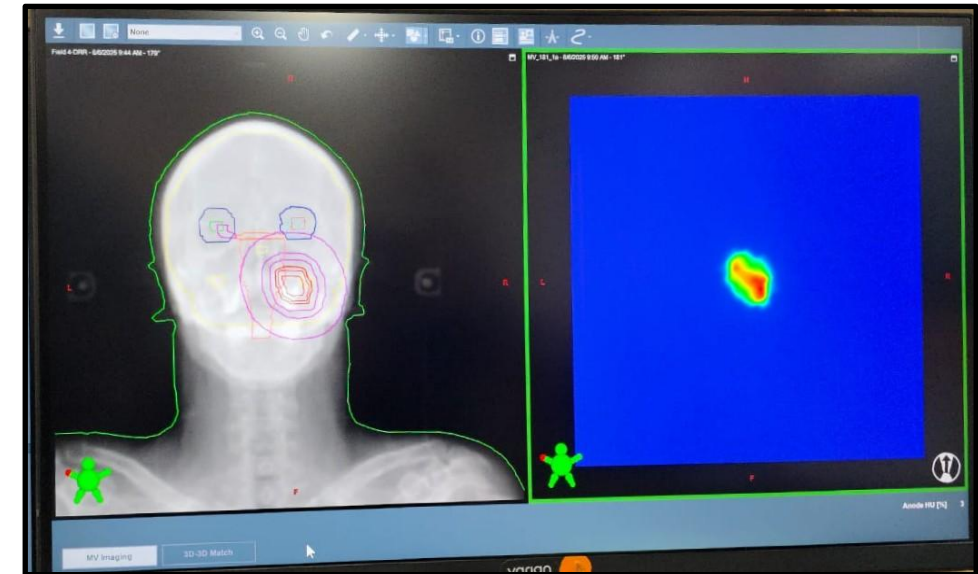
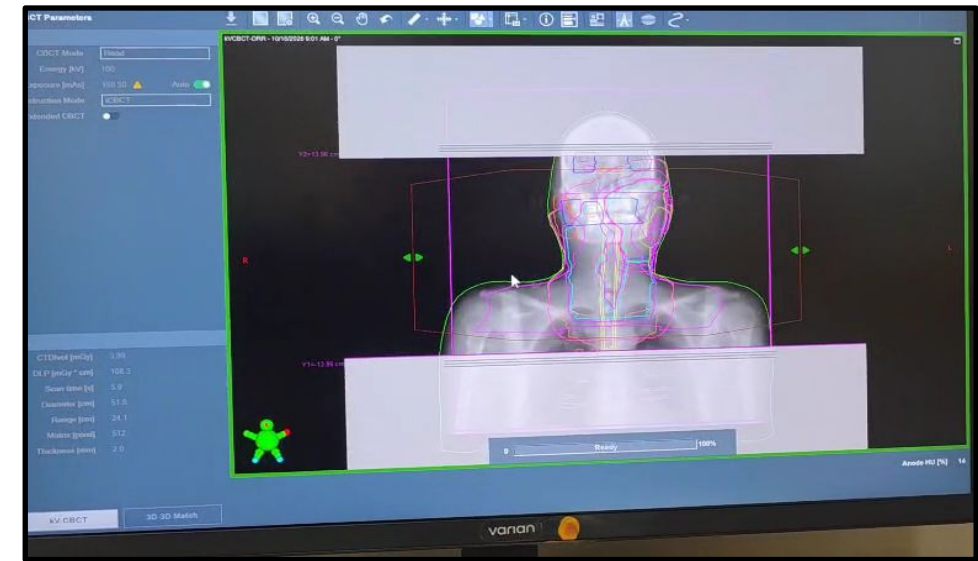
HyperSight Imaging: A Leap in Clarity

- Diagnostic-level CBCT in 6 seconds.
- Enhanced image contrast and anatomical visualization.
- AI-driven correction for motion and artifact reduction.
(MAR, ACUROS)
- Enables adaptive planning with unprecedented precision.



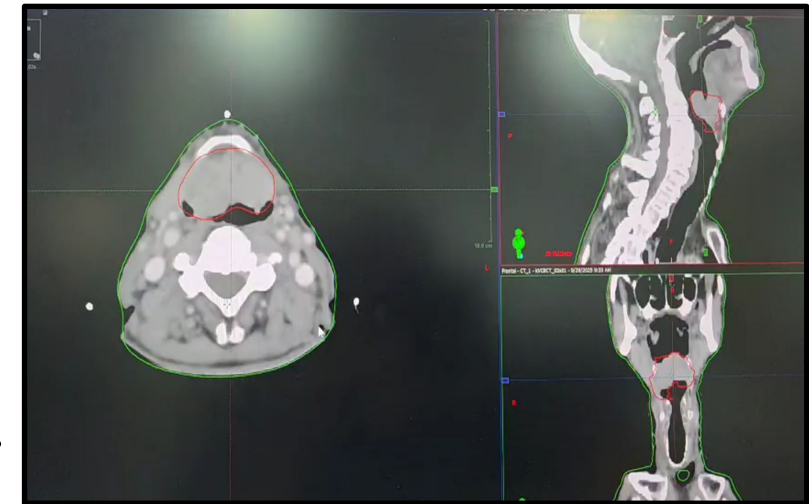
Clinical Transformation in Daily Practice

- Submillimeter patient setup accuracy.
- Real-time imaging and plan adaptation.
- Halcyon HyperSight: 6–8 min/fraction vs. 15–20 min on regular LINAC.
- Improved throughput and comfort.
- Greater patient comfort and confidence.



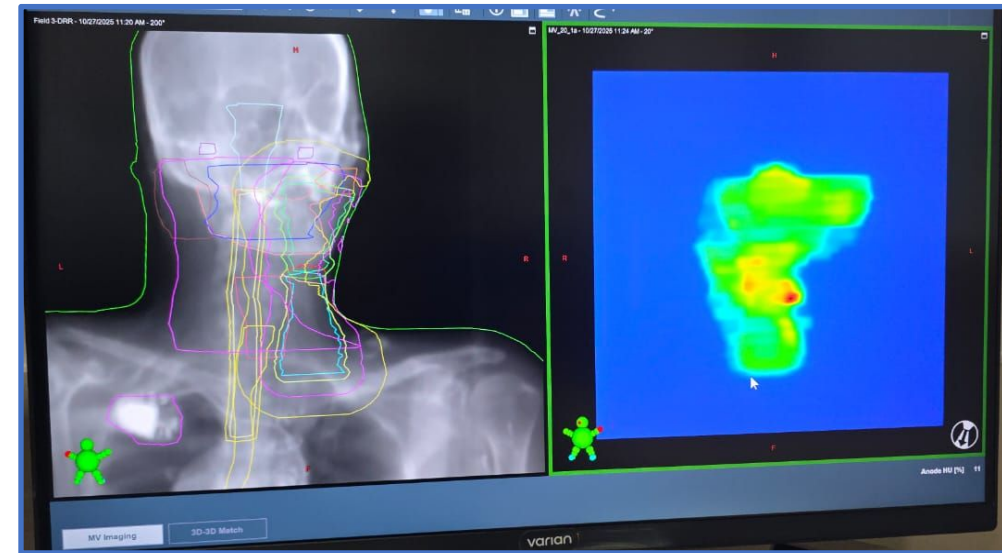
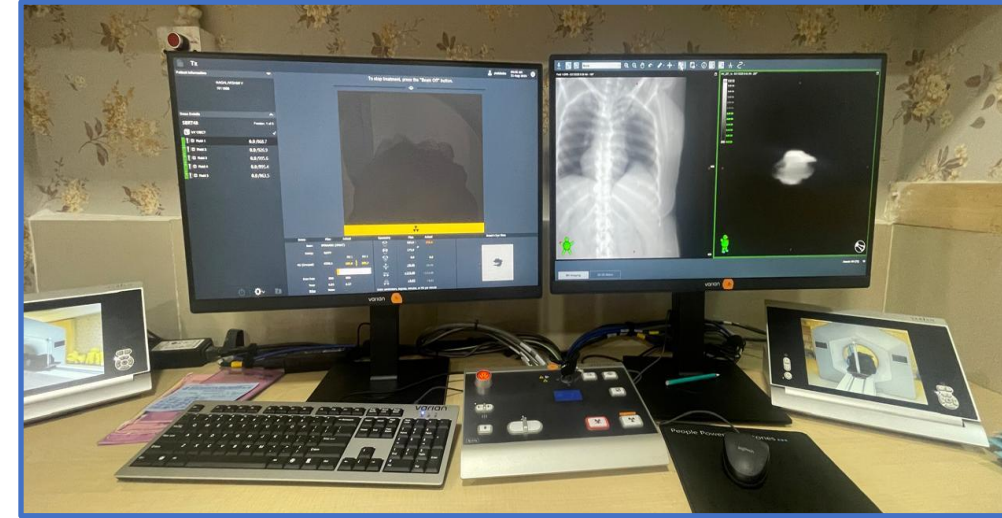
Impact at Basavatarakam Indo-American Cancer Hospital

- Clinical use since July 2025.
- Over 350 patients treated with Halcyon HyperSight.
- Enhanced imaging improved setup accuracy and clinician confidence.
- Integrated with AI-driven planning initiatives.



Team Experience

- Therapists: Smoother workflow.
- Physicists: Consistent Quality Assurance -QA.
- Patients: Faster sessions.
- Clinicians : Suitable for Adaptive Radiotherapy.



The Future of Radiotherapy - ‘Precision + Speed + Comfort + Confidence’

- Expanding adaptive RT protocols.
- Integration with AI-based treatment planning.
- Personalized, precise, patient-centered therapy.
- “Reimagining Radiation Oncology — one beam at a time.”
Fast, Focused, and Faithful to the Plan

