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Elekta Unity MR Linac to revolutionise cancer care in India

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Merger of the power of MRI with the precise linear accelerator in a single unit



Hyderabad-based Yashoda Hospital, in collaboration with Swedish firm Elekta, a leader in precision radiation therapy, has launched the Elekta Unity MR Linac, its ground-breaking technology, in India.

This state-of-the-art system combines the power of magnetic resonance imaging (MRI) with precise radiation delivery, marking a significant advancement in cancer treatment.

The Elekta Unity MR Linac integrates an MRI scanner directly into the LINAC system, allowing for real-time imaging of the patient's anatomy during radiation treatment sessions. This enables Yashoda Hospital to provide patients with precise, accurate, and adaptive radiation therapy, resulting in improved outcomes and reduced side effects compared to traditional radiation therapy systems.

With a conventional LINAC, imaging and radiation delivery are typically separate processes. Patients are imaged using external imaging modalities like CT or MRI, and then the treatment plan is generated based on those images. The Cone beam CT (CBCT) integrated linear accelerator delivers radiation to the patient based on the pre-planned treatment. But this approach has limitations in detailed visualisation of the tumour and surrounding healthy tissues.

By harnessing the capabilities of MRI technology and linear accelerator, this innovative machine enables precise, accurate and adaptive radiation therapy in real-time. It allows for the targeting of tumors with unparalleled precision resulting in improved outcomes with reduced side effects.