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"Our MR-Linac system enhances treatment efficacy while minimising dose spillage"

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From linear accelerators (linacs), brachytherapy devices, Gamma Knife radiosurgery, to oncology informatics, Swedish firm Elekta has been consistently pushing the boundaries of medical technology. The flagship in their lineup is Elekta Unity, an advanced MR-Linac system that seamlessly integrates a high-field MR magnet with a linear accelerator. This game-changing technology enables clinicians to visualise tumours in real-time during radiation therapy, ushering in a new era of precision treatment. Recently, the introduction of the first Elekta Unity MR-Linac in India took place at Yashoda Hospital, Hyderabad. In an exclusive interaction with BioSpectrum, Manikandan Bala, Managing Director for India and Senior Vice President of Intercontinental at Elekta, highlights the revolutionary influence of Elekta's innovative solutions within the realm of cancer care.

The recent collaboration between Elekta and Yashoda Hospital marks a significant milestone as it brings the first MR-Linac technology to India. Can you elaborate on the importance of this partnership and how it will impact cancer treatment in the country?

We are thrilled about our recent collaboration with Yashoda Hospital, which has brought the first MR-Linac technology to India. This collaboration represents a significant milestone in advancing cancer care and underscores our commitment to driving better clinical outcomes for cancer patients. Our Unity MR-Linac seamlessly integrates a cutting-edge magnetic resonance imaging (MRI) scanner with a state-of-the-art linear accelerator system. This innovative combination enables clinicians to deliver precise, accurate, and adaptive radiation therapy to patients. With this integrated MRI-guided radiation therapy, we expect various conditions can be effectively treated, including benign and malignant brain tumours, head and neck cancers, prostate, pancreatic, lung, liver, and rectal cancers. This collaboration will undoubtedly pave the way for new treatment paradigms and significantly enhance the quality of care for cancer patients in India.

Amidst the rising prevalence of cancer, how does this state-of-the-art technology lead to a groundbreaking revolution in the healthcare sector?

The introduction of Elekta Unity represents a revolution in the health sector, especially in the face of rising cancer incidences. This pioneering technology offers clinicians unmatched clarity in real-time. This diagnostic quality visibility enables doctors to see tumours and surrounding healthy tissues with exceptional precision.

The changing shape, size and location of tumours and their surrounding structures requires adaptive treatment planning, which Elekta Unity seamlessly accommodates. Through personalised adjustments to treatment plans, this technology enhances treatment efficacy while minimising dose spillage.

For patients, Elekta Unity ensures precise targeting of tumours while minimising radiation exposure to healthy tissues. This precise and personalized approach leads to a reduction in overall treatment time and the potential for fewer treatment cycles, tailored to the specific characteristics of the tumour. The transformative impact of Elekta Unity on patient outcomes is remarkable, with improved treatment accuracy and reduced side effects. This technology is not only revolutionising cancer care but is also setting a new standard for the health sector, promising better outcomes and enhanced quality of life for cancer patients.

What specific benefits does this advanced MR-guided radiation therapy system offer to cancer patients in the country?

By allowing clinicians to visualise tumours in real time and administer radiation with unmatched accuracy, Elekta Unity can significantly improve outcomes while minimizing side effects for cancer patients.

With Elekta Unity, clinicians may be able to treat tumours that were previously challenging or impossible to target with radiation therapy. This breakthrough technology enables precise and targeted radiation delivery, reducing the risk of damage to healthy tissues and organs. Consequently, patients should experience fewer side effects, such as fatigue, nausea, and vomiting, leading to a better quality of life during and after treatment.

Moreover, Elekta Unity offers the advantage of shorter treatment courses. By leveraging its advanced capabilities, clinicians can optimise treatment plans to achieve the desired results in fewer sessions. This not only improves patient convenience but also reduces the overall cost of care, which is a big challenge in India.

The introduction of Elekta Unity in India marks a significant leap forward in cancer treatment. With its real-time tumour visualisation and unparalleled accuracy in radiation delivery, Elekta Unity will undoubtedly enhance the lives of countless cancer patients across the country. It has the potential to improve treatment outcomes, minimise side effects, and streamline the treatment process, reinforcing Elekta's commitment to advancing cancer care in India.

In your opinion, what are some of the advanced technologies from around the world that should be integrated into the Indian healthcare system to enhance cancer care?

Elekta Unity MR-Linac stands as a vital global technology that should be integrated into the Indian healthcare system to enhance cancer care significantly. By incorporating Unity, clinicians gain valuable insights that aid informed decision-making throughout the treatment journey. Embracing this advanced technology would elevate India's cancer care capabilities, offering patients access to state-of-the-art treatments and positioning the country as a leader in innovative healthcare solutions. Additionally, the integration of oncology informatics into the healthcare ecosystem is emphasised, enabling proper data capture on incidence and treatment outcomes. In addition, brachytherapy is an ideal treatment modality for cervical cancer and Gamma Knife, is the highest preceision SRS system.

What is the current global presence of Elekta Unity MR-Linac technology, and how do you envision its potential for future scalability in the Indian market?

Elekta Unity MR-Linac technology has gained remarkable global traction. The recent introduction of India's first Unity MR-Linac in Hyderabad signifies the increasing interest and positive response from healthcare providers worldwide. Presently, there are 53 units already in clinical use across 22 countries.

Ensuring the scalability of Unity in the Indian market involves considering a range of complex factors. This encompasses not only the availability of the technology but also the essential requirements such as healthcare infrastructure, skilled professionals, and robust ecosystems. Successfully integrating this advanced technology into existing healthcare facilities requires careful planning and substantial investments.

Elekta acknowledges the utmost importance of addressing these factors to ensure the successful adoption and scalability of Unity in India. By proactively engaging with healthcare stakeholders, including government bodies, hospitals, and clinicians, Elekta strives to understand the unique challenges and collaboratively develop strategies to enhance cancer care delivery.

The primary objective is to closely collaborate with healthcare providers and decision-makers, actively supporting the growth of India’s cancer care infrastructure. By leveraging expertise and fostering partnerships, Elekta aims to strengthen capabilities and improve access to cutting-edge cancer treatments, ultimately benefiting patients throughout the country.

Sanjiv Das

(sanjiv.das@mmactiv.com)