Clinical Value of MRIdian® MRI-Guided Radiation Therapy in the Treatment of Ultracentral/Central Lung Tumors Presented at ESTRO 2022

May 10, 2022

Retrospective analysis shows MRIdian's small treatment margins enabled by adaptation and real-time tracking and automated beam control may allow for ablative radiation with minimal toxicity in hard to treat lung lesions

CLEVELAND, May 10, 2022 /PRNewswire/ -- ViewRay, Inc. (Nasdaq: VRAY) announced today the results of a study presented at the Annual Meeting of the European Society for Radiotherapy and Oncology (ESTRO) titled, "MR-guided SBRT/Hypofractionated RT for Metastatic and Primary Ultracentral and Central Lung Lesions," which demonstrated that the real-time image-guidance, small treatment margins and adaptation afforded by MRIdian SMART (Stereotactic MRI-Guided Adaptive Radiotherapy) may allow for ablative radiation with minimal toxicity in ultracentral/central lung lesions.

Prior studies of stereotactic body radiation therapy (SBRT) for ultracentral and central lung lesions have reported high rates of toxicity, including reports of fatal Grade 5 toxicities. Last year the HILUS-trial, a prospective Nordic multi-center phase II study of ultracentral lung, which was conducted using non-MRI-guided radiation therapy systems, observed unacceptable high-grade toxicity when delivering SBRT to ultracentral lung tumors. The trial noted Grade 3-5 toxicity in 22 of the 65 patients, including 10 cases of treatment related death.

Researchers from Moffitt Cancer Center in Tampa, FL conducted a retrospective review of results from 29 patients treated at their institution with MRI-guided SBRT/hypofractionated RT with image-guided real-time tracking and automatic beam gating and/or adaptation for ultracentral (per HILUS) or central (per RTOG) lesions. In their cohort, the use of MRI-guided SBRT/hypofractionated RT with high biologically effective doses (BEDs) resulted in excellent oncologic outcomes and only a single Grade 3 toxicity with no Grade 4 or Grade 5.

"From our experience with MRIdian SMART over the past three years, we believed it could be used to safely treat metastatic and primary ultracentral and central lung lesions, providing excellent local control with minimal toxicity," said Stephen Rosenberg, MD, MS, Director of MRI Guided Radiation Therapy at Moffitt Cancer Center. "These high-risk lung lesions are challenging to treat with high-dose radiation because of the proximity to critical structures such as the esophagus, major airways and vessels while dealing with significant anatomical motion in the thorax. However, our findings demonstrate that MRIdian's real-time tumor tracking and automatic beam gating make it possible to accurately deliver an ablative dose with tight margins that may allow us to reduce toxicity to surrounding healthy tissue and spare organs at risk."

To date, over 21,000 patients have been treated with MRIdian. Currently, 50 MRIdian systems are installed at hospitals around the world where they are used to treat a wide variety of solid tumors and are the focus of numerous ongoing research efforts. MRIdian has been the subject of hundreds of peer-reviewed publications, scientific meeting abstracts, and presentations. For a list of treatment centers, please visit: https://viewray.com/find-mridian-mri-guided-radiation-therapy/

Disclaimer:
The opinions and clinical experiences discussed herein are specific to the featured physicians and are for information purposes only. Nothing in this material is intended to provide specific medical advice or to take the place of written law or regulations. Results of treatment presented in this press release are not indicative of typical or future results.

Safety Statement
The MRIdian Linac System is not appropriate for all patients, including those who are not candidates for magnetic resonance imaging. Radiation treatments may cause side effects that can vary depending on the part of the body being treated. The most frequent ones are typically temporary and may include, but are not limited to, irritation to the respiratory, digestive, urinary or reproductive systems; fatigue; nausea; skin irritation; and hair loss. In some patients, side effects can be severe. Treatment sessions may vary in complexity and duration. Radiation treatment is not appropriate for all cancers. You should discuss the potential for side effects and their severity as well as the benefits of radiation and magnetic resonance imaging with your doctor to make sure radiation treatment is right for you.

Conflict of Interest: Stephen Rosenberg, MD, has been compensated by ViewRay for his services and is a member of ViewRay's Lung Consortium.

About ViewRay
ViewRay, Inc. (Nasdaq: VRAY) designs, manufactures, and markets the MRIdian® MRI-Guided Radiation Therapy System. MRIdian is built upon a proprietary high-definition MR imaging system designed from the ground up to address the unique challenges and clinical workflow for advanced radiation oncology. Unlike MR systems used in diagnostic radiology, MRIdian's high-definition MR was purpose-built to address specific challenges, including beam distortion, skin toxicity, and other concerns that potentially may arise when high magnetic fields interact with radiation beams. ViewRay and MRIdian are registered trademarks of ViewRay, Inc.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of Section 27A of the Private Securities Litigation Reform Act. Statements in this press release that are not purely historical are forward-looking statements. Such forward-looking statements include, among other things, ViewRay's financial guidance for the full year 2022, anticipated future orders, anticipated future operating and financial performance, treatment results, therapy adoption, innovation, and the performance of the MRIdian systems. Actual results could differ from those projected in any forward-looking statements due to numerous factors. Such factors include, among others, the ability to commercialize the MRIdian Linac System, demand for ViewRay's products, the ability to convert backlog into revenue, the timing of delivery of ViewRay's products, the timing, length, and severity of the

COVID-19 pandemic, including its impacts across our businesses on demand, our operations and global supply chains, disruptions in the supply or changes in costs of raw materials, labor, product components or transportation services as a result of inflation, the results and other uncertainties associated with clinical trials, the ability to raise the additional funding needed to continue to pursue ViewRay's business and product development plans, the inherent uncertainties associated with developing new products or technologies, competition in the industry in which ViewRay operates, and overall market conditions. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to ViewRay's business in general, see ViewRay's current and future reports filed with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and its Quarterly Reports on Form 10-Q, as updated periodically with the Company's other filings with the SEC. These forward-looking statements are made as of the date of this press release, and ViewRay assumes no obligation to update the forward-looking statements, or to update the reasons why actual results could differ from those projected in the forward-looking statements, except as required by law.

View original content:https://www.prnewswire.com/news-releases/clinical-value-of-mridian-mri-guided-radiation-therapy-in-the-treatment-of-ultracentralcentral-lung-tumors-presented-at-estro-2022-301543497.html

SOURCE ViewRay, Inc.

Media Enquiries: Samantha Pfeil, Director, Marketing Communications, ViewRay, Inc., media@viewray.com; or Investor Relations: Matthew Harrison, Investor Relations, ViewRay, Inc., investors@viewray.com