



New Outcomes Data Demonstrating Prolonged Survival for Inoperable Pancreatic Cancer Patients Presented at Leading Radiation Oncology Meeting

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Findings Show Median Overall Survival Of 26 Months for Patients Receiving Ablative Doses with MRIdian MRI-Guided Radiation Therapy

CHICAGO, Oct. 28, 2021 /PRNewswire/ -- ViewRay, Inc. (NASDAQ: VRAY) today announced that the results of a multi-center study of 148 inoperable pancreatic cancer patients treated with MRIdian SMART (MR-guided stereotactic adaptive radiation therapy) were presented as part of the Annual Meeting of the American Society for Radiation Oncology (ASTRO), the world's largest radiation oncology society, held October 24-27, 2021 in Chicago. The results, presented on October 27 by Michael Chuong, M.D., medical director of radiation oncology at the Miami Cancer Institute, part of Baptist Health South Florida, demonstrated improvement in overall survival and quality of life. Findings showed longer median survival of 26 months compared to 12-15 months typically seen in patients receiving chemotherapy and standard radiation therapy. The 2-year overall survival was over 50 percent, which is more than double the expected 2-year rate of 20 percent with lower dose radiation.

Often undetected until it has spread elsewhere in the body, pancreatic cancer is the third leading cause of cancer death in the United States, with a mortality rate of roughly 80 percent. At diagnosis, only about 20 percent of pancreatic cancer patients are eligible for surgery and the prognosis for inoperable pancreatic cancer patients is especially poor.

There have been few substantial treatment alternatives for pancreas cancer patients in decades. However promising early results on the use of MRIdian SMART for inoperable pancreas cancer were published in 2019. These results showed the potential for better outcomes and lower toxicities impacting quality of life for patients. Given this, researchers were eager to see if the benefits could be maintained over several years and without significant side effects.

The presentation, titled "[Long-Term Multi-Institutional Outcomes of 5-Fraction Ablative Stereotactic MR-Guided Adaptive Radiation Therapy \(SMART\) for Inoperable Pancreas Cancer With Median Prescribed Biologically Effective Dose of 100 Gy10](#)", highlighted results from 148 patients treated with MRIdian SMART at three institutions – Miami Cancer Institute, Henry Ford Medical Center and Acibadem Healthcare Group – using a biologically effective dose of 100 Gy delivered in 5 fractions. Median follow up was 16 months from diagnosis. Local control of the tumor at 1-year and 2-years was 94.6 percent and 83 percent respectively. Median overall survival was 26 months. Similar studies have shown median survival for inoperable pancreatic patients receiving chemotherapy and standard radiation therapy to be only about 12 to 15 months. Outcomes with MRIdian SMART were achieved with low rates of major adverse events, which were no higher than those reported with standard radiation therapy.

"Pancreatic cancer is difficult to remove surgically because the tumors often entangle themselves into surrounding blood vessels and tissue in the abdomen, leaving a large number of patients inoperable and further contributing to the deadly nature of the disease," said Dr. Chuong. "We are thrilled to see such an improvement – with long-term survival more than doubling when MRIdian SMART was used to treat this population of patients. In fact, some patients were still alive several years later with excellent quality of life. These results are a significant improvement over historical outcomes from standard CT-guided radiation therapy."

"As the leading patient advocacy organization dedicated to fighting the world's toughest cancer, PanCAN is committed to improving outcomes for pancreatic cancer patients," said Julie Fleshman, President and CEO of the Pancreatic Cancer Action Network (PanCAN). "These findings offer hope for those facing an inoperable pancreatic cancer diagnosis and are bringing us one step closer to achieving our vision to create a world in which all patients with pancreatic cancer will thrive."

MRIdian SMART is a non-invasive, outpatient procedure typically completed in five treatment sessions with little to no side effects. MRIdian uses real-time MRI imaging to continuously track the tumor throughout treatment and control the radiation beam so that high doses of radiation can be delivered with pinpoint accuracy, avoiding unwanted dose to nearby healthy tissue and critical anatomic structures. This allows for the delivery of ablative doses of radiation in fewer treatment sessions than standard radiation therapy. With MRIdian, modifications can be made throughout the treatment in response to changes in the tumor and nearby internal anatomy. This enables more personalized treatment and helps further improve the precision of treatment.

Nearly 16,000 patients have been treated with MRIdian. Currently, 46 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.

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.

ViewRay is a medical device manufacturer and cannot and does not recommend specific treatment approaches. Individual results may vary. The results described herein may not be predictive

Conflicts of Interest: Michael Chuong, M.D. has received honoraria and research grants from ViewRay, Inc. outside of the scope of this study and serves on the Medical Advisory Board 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, anticipated future orders, ViewRay's financial guidance for the full year 2021, 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 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 recent COVID-19 (coronavirus) pandemic, including its impacts across our businesses on demand, operations and our global supply chains, 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, 2020 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.

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