

# Study shows promising safety, patient outcomes data for MRI-guided adaptive radiation therapy to treat pancreatic cancer

November 21 2022

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A ViewRay MRIDian system at Henry Ford Health. Credit: Henry Ford Health

Findings from a recent prospective study show promising safety and patient outcomes data for locally advanced and borderline resectable

pancreatic cancer treatment using ablative Stereotactic MRI-Guided On-table Adaptive Radiation Therapy, also known as SMART.

Approximately 25% of the study's participants were patients treated at the Henry Ford Pancreatic Cancer Center (HFPC).

Titled "Stereotactic MRI-Guided On-table Adaptive Radiation Therapy (SMART) for Locally Advanced Pancreatic Cancer," this study was the first Phase II prospective international multi-institutional study to deliver ablative doses of radiation to patients with pancreatic cancer.

"As a pioneering institution in the field of MRI-guided adaptive radiation therapy, Henry Ford Health is thrilled to have led this novel study, which was the largest international study of ablative [radiation](#) for pancreatic cancer in the world," said Ben Movsas, M.D., Medical Director of Henry Ford Health Cancer and Chair of Radiation Oncology. "Henry Ford was first in the world to treat a patient using the MRIdian MRI-Guided Radiation Therapy system back in 2017. Since then, we have treated many [cancer patients](#) with MRI-Guided Radiation Therapy."

The primary endpoint outcomes from the study were presented at the 64th Annual Meeting of the American Society for Radiation Oncology (ASTRO) by Parag Parikh, M.D., the Principal Investigator of the study and Director of GI Radiation Oncology and MR-Guided Radiation Therapy at Henry Ford Cancer.

"In this study, 136 patients were treated with ablative MRIdian SMART at 13 international centers," said Dr. Parikh. "The study's primary outcome measured grade 3 or higher gastrointestinal toxicity, such as nausea, vomiting or [abdominal pain](#), in the first 90 days after treatment. The study's primary safety objective was met, with zero incidence of acute grade 3 or higher gastrointestinal toxicity definitively related to SMART treatment."

Secondary measures of the study include overall survival, local control, distant progression-free survival, and changes in patient-reported quality of life, Dr. Parikh explained. While study patients are still early in the follow-up period, preliminary clinical outcomes data of one-year [local control](#) (meaning the stopping of cancer growth) and distant progression-free survival (meaning the length of time during and after the treatment that a patient lives with the disease, but it does not get worse) were 82.9% and 50.6% respectively. One-year overall survival from diagnosis was 93.9%.

"Our HFPCCC is committed to the pursuit of scientific breakthroughs that have the potential to change the paradigm of pancreatic cancer, which at present, has one of the highest mortality rates in comparison to other types of cancer," said David Kwon, M.D., Clinical Director of the HFPCCC.

"As relentless advocates for our patients, we offer the most advanced evidence-based therapeutic options available today. We remain steadfast in our belief that outcomes for patients with [pancreatic cancer](#) can and will continue to improve through global collaboration and critical research initiatives, such as this study."

Henry Ford Health Cancer is one of the largest cancer programs in Michigan, providing care at five hospitals, 11 outpatient facilities and hundreds of aligned doctors' offices throughout southeast and southcentral Michigan. Cancer experts at Henry Ford communicate seamlessly across the organization's multiple [cancer](#) treatment locations.

In total, nearly 27,000 patients have been treated with MRIdian. Currently, 54 MRIdian systems are installed at locations around the world, where they are used to treat a wide variety of solid tumors and are the focus of numerous ongoing research efforts.

**More information:** Study: [Stereotactic MRI-Guided On-table Adaptive Radiation Therapy \(SMART\) for Locally Advanced Pancreatic Cancer](#)

Provided by Henry Ford Health

Citation: Study shows promising safety, patient outcomes data for MRI-guided adaptive radiation therapy to treat pancreatic cancer (2022, November 21) retrieved 26 April 2024 from <https://medicalxpress.com/news/2022-11-safety-patient-outcomes-mri-guided-therapy.html>

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