SBRT Considered Safe Treatment Option for Patients with Multiple (2-4) Metastases

SAN ANTONIO, TX – The NRG Oncology clinical trial BR001 tested the hypothesis that stereotactic body radiotherapy (SBRT) could be used safely in oligometastatic patients with multiple metastases. Results from the trial indicate that utilizing SBRT is safe as treatment for patients with 2 metastases in close proximity or 3-4 metastases regardless of proximity, in the following anatomic locations: peripheral lung, central lung, abdomen/pelvic, bone/osseous, spinal/paraspinal, cervical and liver. This abstract was presented at the American Society for Radiation Oncology (ASTRO) annual meeting and recognized as a “Best of ASTRO” presentation for 2018.

NRG-BR001 was initially designed and deployed by NRG Oncology’s breast cancer team, then the team invited patients with lung cancer and prostate cancer to participate. The study accrued 36 patients between August 2014 and December 2017, 12 of which had breast cancer, 11 had non-small cell lung cancer, and 13 had prostate cancer. All patients in this study were followed for dose-limiting toxicity defined by any grade 3 through 5 adverse events that occurred either definitely or probably from SBRT within 6 months of receiving the treatment. These patients were categorized into seven different anatomic locations: bone/osseous (BO), spinal/paraspinal (SP), peripheral lung (PL), central lung (CL), abdominal/pelvic (AP), mediastinal/cervical (MC), and liver (L).

“While the SBRT dose schedule used in this trial is typical when treating single metastases, the patients that participated in NRG-BR001 had a median of three metastases, and displayed zero protocol-defined dose-limiting toxicities across the evaluable anatomic locations. We attribute this safety to the rigorous quality assurance and advanced imaging used by all participating centers which had to be credentialed before they were allowed to treat any patients that volunteered to participate on this trial,” stated Steven J. Chmura, MD, PhD, Associate Professor of Radiation and Cellular Oncology at the University of Chicago Medicine and the lead author of the abstract.

Based on the results of this trial, NRG-BR001, the ongoing, randomized NRG Oncology trial NRG-BR002, a breast cancer-specific trial, has been expanded to allow up to 4 metastases. These results may also be able to be incorporated into other trials, such as immunotherapy trials using SBRT to target multiple metastases.

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About NRG Oncology

NRG Oncology conducts practice-changing, multi-institutional clinical and translational research to improve the lives of patients with cancer. Founded in 2012, NRG Oncology is a Pennsylvania-based nonprofit corporation that integrates the research of the National Surgical Adjuvant Breast and Bowel Project (NSABP), the Radiation Therapy Oncology Group (RTOG), and the Gynecologic Oncology Group (GOG). The research network seeks to carry out clinical trials with emphases on gender-specific malignancies, including gynecologic, breast, and prostate cancers, and on localized or locally advanced cancers of all types. NRG Oncology’s extensive research organization comprises multidisciplinary investigators, including medical oncologists, radiation oncologists, surgeons, physicists, pathologists, and statisticians, and encompasses more than 1,300 research sites located world-wide with predominance in the United States and Canada. NRG Oncology is supported primarily through grants from the National Cancer Institute (NCI) and is one of five research groups in the NCI’s National Clinical Trials Network.

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About the University of Chicago Medicine Comprehensive Cancer Center

The University of Chicago Medicine Comprehensive Cancer Center has been at the forefront of cancer care and discovery for more than 50 years. Many of the roots of chemotherapy, hormonal therapy, gene therapy, and bone marrow transplantation can be traced back to the Cancer Center. More than 200 physician scientists are conducting basic, clinical and translational research to study cancer from all angles, enabling the incorporation of personalized medicine into routine care. The Cancer Center is one of only 49 National Cancer Institute-designated Comprehensive Cancer Centers, a distinction that denotes scientific excellence, as well as discovery and development of effective approaches to cancer risk assessment, prevention, diagnosis, treatment, and survivorship. The Cancer Center has been listed in U.S. News & World Report as one of “America’s Best Hospitals” for cancer since 1999. For more information, visit cancer.uchicago.edu, Facebook, and Twitter.