Combining radiation therapy, chemotherapy safely treats head and neck cancer patients

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Stereotactic body radiotherapy (SBRT), a radiation therapy procedure pioneered at the University of Pittsburgh Cancer Institute (UPCI) that precisely delivers a large dose of radiation to tumors, may effectively control and treat head and neck cancers when combined with the chemotherapy Cetuximab, according to researchers from UPCI. The results of the research will be presented today at the American Society for Radiation Oncology (ASTRO) annual meeting in San Diego.

The study, led by Dwight E. Heron, M.D., professor of otolaryngology and vice chairman of the Department of Radiation Oncology at the University of Pittsburgh School of Medicine, enrolled 24 patients with recurrent head and neck cancers who had previously undergone radiation therapy treatment. Patients received Cetuximab a week before and during the two-week course of SBRT. The study showed that the regimen is a safe treatment option and may improve overall patient survival rates.

According to Dr. Heron, the study is important because surgical treatments for many patients with recurrent, locally advanced head and neck cancers are frequently limited, while other treatments either fail to adequately control the disease progression or are too toxic for patients to manage.

"While therapies for head and neck cancers have improved over the years, too many patients suffer relapses," said Dr. Heron. "When surgery and certain combinations of chemotherapy and radiation therapy are

deemed either high risk or too toxic as treatment options, very specialized radiation therapy strategies are frequently considered. Unfortunately, conventional radiation therapy, including intensity-modulated radiation therapy, often has debilitating side effects for this subset of patients, and we are often faced with the challenge of how to treat their cancers aggressively while limiting the risk of side effects."

For this study, Dr. Heron and his team combined Cetuximab, which has been shown to enhance the effect of radiation therapy in patients with newly diagnosed head and neck cancers, and SBRT. By combining the two, treatment time was reduced from six weeks to one week while improving the side effects of re-treatment.

"We think this combination also may improve local control and perhaps survival rates, as we have seen in our own retrospective series. Most importantly, this study contributes to the emerging data fueled by UPCI suggesting a role for SBRT in patients with recurrent head and neck cancers," said Dr. Heron.

Head and neck cancers are a group of biologically similar cancers originating from the upper aerodigestive tract, including the lip, mouth, nasal cavity, paranasal sinuses, pharynx and larynx that affect more than 45,000 individuals in the U.S. each year. Head and neck cancers are strongly associated with environmental and lifestyle risk factors, including tobacco smoking, alcohol consumption and certain strains of the sexually transmitted human papilloma virus.

Provided by University of Pittsburgh