

IMRT improves outcomes in patients with extranodal lymphoma of the head and neck

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Lymphoma is a cancer that affects organs of the immune system, including the lymph nodes. In a subtype of the disease called extranodal lymphoma, tumors arise in non-lymphoid organs, such as the tongue and tonsils. Patients with extranodal lymphoma of the head and neck often undergo radiation therapy, but this treatment frequently damages the salivary glands and causes dry mouth, which can lead to problems with eating, speaking and swallowing.

An advanced [radiation therapy](#) technique called [Intensity Modulated Radiation Therapy](#) (IMRT) produces no major side effects and a high response rate in patients with extranodal [lymphoma](#) of the head and neck, according to new research from Fox Chase Cancer Center. Aruna Turaka, M.D., a [radiation oncologist](#) at Fox Chase, presented the findings at the 2011 Pan Pacific Lymphoma Conference on Monday, August 15.

IMRT involves using a computer to deliver [radiation doses](#) with the optimal intensity and pattern so that the [radiation beam](#) conforms to the three-dimensional shape of the tumor and spares healthy surrounding tissue. The procedure is commonly used to treat [head and neck cancer](#) because it provides better local control rates and causes fewer side effects, such as dry mouth compared with standard conventional radiation therapy techniques. But whether IMRT is the best radiation therapy for patients with extranodal lymphoma of the head and neck had not been previously investigated.

"IMRT is a promising technique that should be used to treat extranodal lymphoma, in addition to chemotherapy," Turaka says. "Radiation acts as a form of local treatment that prevents loco- regional relapses, and chemotherapy helps to prevent systemic relapses."

In the new study, Turaka and her colleagues identified five patients with extranodal lymphoma of the head and neck who were treated with IMRT at Fox Chase between 2007 and 2010. Four of these individuals also received chemotherapy. All of the patients had stage IEA disease, indicating that the cancer was located in a single region and there were no systemic symptoms, such as fever, drenching night sweats, and weight loss.

After treatment, the majority of patients showed improved outcomes and only minor symptoms. There were no occurrences of severe dry mouth, no [relapses](#) in the head or neck, and no evidence of tissue abnormalities appearing on positron emission tomography scans (PET) of these regions. Only one individual experienced a systemic relapse, and four people survived during the follow-up period. The findings show that IMRT helps to control local tumors while keeping side effects at a minimum.

In follow-up studies, Turaka will examine the effectiveness and side effects of IMRT, in comparison with conventional radiation therapy approaches, in a larger group of patients with extranodal lymphoma affecting various sites in the body.

"Though these types of lymphomas are rare, it's important to treat them using advanced techniques, such as IMRT, to achieve better results and give good symptom relief to patients," Turaka says.

Provided by Fox Chase Cancer Center

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