

Sentinel lymph node biopsy predicts outcomes for Merkel cell carcinoma

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Patients with Merkel Cell Carcinoma who underwent a procedure called sentinel lymph node biopsy (SNLB) had a lower risk of cancer recurrence after two years, according to a study by researchers from Fox Chase Cancer Center. When the biopsy's results were used to guide subsequent tests and treatment, these patients had longer survival rates than patients who had not undergone the procedure.

"[Sentinel lymph node](#) biopsy, or SNLB, can be used to recommend which way to proceed with a patient's treatment," says Aruna Turaka, M.D., a [radiation oncologist](#) at Fox Chase and lead author on the new study. Turaka will present her team's findings at the 53rd Annual Meeting of the American Association for [Radiation Oncology](#) on Monday, October 3.

"Right now, with almost all patients, even stage I patients, we recommend radiation to the local site. But this study can help us make more judicious use of treatment and identify who will be most benefited to the regional lymph nodes," Turaka says.

Merkel cell carcinoma is a rare and aggressive type of [skin cancer](#) that forms in cells at the bottom of the epidermis, usually striking older people and people with weakened immune systems. The tumor often appears as a painless, fast-growing lump on a part of the body exposed to the sun, including the head and neck, the trunk, and legs and arms. The cancer is believed to metastasize from an early stage, first spreading to nearby regional lymph nodes. It may spread to other lymph nodes, as well as the lungs and other organs. The first lymph node where [cancer cells](#) appear is called the sentinel lymph node.

Because the disease metastasizes so quickly, Turaka says, it's important to identify the patients most at risk for a recurrence of cancer at or near the site of the original tumor. The new study may

provide a way for practitioners to use sentinel [lymph nodes](#) to guide treatment and thereby reduce the likelihood of cancer returning to the same area. Patients diagnosed with Merkel Cell Carcinoma first undergo surgery to excise the primary tumor; most are then treated with radiation to the site.

In the last decade, [sentinel lymph node biopsy](#) has grown increasingly popular as a way to study and assess the extent of different types of cancer in the body. In an SLNB, the sentinel lymph node is identified, removed and studied. If cancerous cells are not detected, then the patient may avoid more follow-up surgery. If cancerous cells are detected, then the patient may have to undergo a lymph node dissection (LD), which is a more invasive procedure.

"Lymph node dissection is a definitely a big surgery," says Turaka, "and extensive surgery is always associated with high morbidity."

A patient with merkel cell carcinoma only receives further radiation if the SNLB comes back positive for cancer cells. If the biopsy is free of cancer cells, the patients is not given radiation and does not need to undergo surgery, says Turaka.

She and her colleagues studied the records of 88 patients from Fox Chase Cancer Center who were diagnosed with [merkel cell carcinoma](#) between 1990 and 2010. Of those, 41 had undergone SLNB. The researchers found that in 42 percent of patients whose SLNB turned up cancerous cells, cancer returned to same area within two years. Only 22 percent of patients with negative SLNB results had locoregional recurrences.

In addition, Turaka and her team found that patients who had undergone SLNB had higher two-year overall survival and disease-free [survival rates](#) compared to patients who had not undergone the surgery.

Provided by Fox Chase Cancer Center

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