

Bladder Cancer Trial Finds Extended Lymph Node Surgery Doesn't Improve Survival

In a study, extended lymph node surgery did not reduce the risk of the disease recurring or death, compared with the standard surgery.

November 29, 2024 By [National Cancer Institute](#)

Surgeons treat some types of bladder cancer by removing the bladder and nearby lymph nodes. Removing the lymph nodes reduces the chances of the cancer coming back in the pelvis.

Two approaches are used to remove [lymph nodes](#) in people with [localized](#) muscle-invasive [bladder cancer](#) who undergo surgery to remove the bladder. One approach removes a standard group of lymph nodes, whereas the other removes a larger, or extended, group of lymph nodes.

Although both surgeries (also called dissections) are used in current practice, few studies have directly compared them. A 2019 clinical trial in Germany found that [more extensive lymph node surgery didn't improve how long people with muscle-invasive bladder cancer lived](#).

Now, an NCI-supported clinical trial has produced a similar result. In the study, extended lymph node surgery did not reduce the risk of the disease recurring or death, compared with the standard surgery.

The study included about 600 people with localized muscle-invasive bladder cancer who, during surgery to remove the bladder, were randomly assigned to either the standard or extended lymph node surgery group.

At a median follow-up of 6.1 years after surgery, there were [no statistically significant differences in overall survival or disease-free survival](#) between the groups, according to results published in the New England Journal of Medicine on October 2.

Moreover, people who underwent extended lymph node removal had an increased risk of serious side effects and death within 90 days of surgery, the researchers found.

"Our findings add to the evidence from the German trial that also showed no benefit from extended [pelvic lymphadenectomy](#)," said the study's lead investigator Seth P. Lerner, M.D., of the Baylor College of Medicine. The SWOG Cancer Research Network conducted the study.

Both trials suggest that standard lymph node surgery, when done well, is sufficient for most patients, noted Ashish Kamat, M.D., director of bladder cancer research at the University of Texas MD Anderson Cancer Center and one of the surgeons who enrolled study participants.

Dr. Kamat said he expects that the new findings will prompt a shift among surgeons towards more selective use of extended [lymph node dissection](#).

“Less is often more,” Dr. Kamat continued. “The study clearly demonstrates that extended lymph node dissection does not improve survival for most patients, while increasing the risk of complications.”

Challenging the conventional wisdom

At the time of diagnosis, some people with muscle-invasive bladder cancer may have cancer cells in the lymph nodes near the bladder. Despite limited research comparing the two lymph node surgeries, the more extensive procedure has become standard at many medical centers.

The new findings show the importance of conducting scientifically rigorous studies before surgical procedures are widely adopted, Dr. Lerner noted.

“When high-level scientific evidence is lacking, we should challenge the conventional wisdom,” he said. “We can address these knowledge gaps in randomized trials, and [NCI’s National Clinical Trials Network](#) is the perfect place to conduct definitive surgical trials.”

Randomized clinical trials provide the highest level of scientific evidence, noted Georgios Gakis, M.D., Ph.D., of the Martin Luther University Halle-Wittenberg, Germany, and his colleagues in a [review of research on lymph node surgeries for bladder cancer](#).

Based on the randomized data, the standard pelvic lymph node dissection is sufficient, and extension of the dissection above this level does not provide any additional benefit, Dr. Gakis and his colleagues concluded.

No survival differences with extended surgery, more complications

The SWOG trial included 36 experienced urologic cancer surgeons at 27 sites in the United States and Canada. Each participating surgeon had to have done at least 50 bladder removal surgeries (radical cystectomies) over the previous 3 years.

After a median follow-up of 6.1 years, the researchers found no [statistically significant](#) differences in two measures of survival—how long participants went without the cancer returning (disease-free survival) and how long they lived (overall survival).

The estimated 5-year disease-free survival was 60% in the standard surgery group and 56% in the extended group; 5-year survival was 63% in the standard surgery group and 59% in the extended

group.

Serious side effects, such as a drop in red blood cells (anemia) requiring a blood transfusion and wound complications, were more common in the extended surgery group (54% versus 44%).

Analyzing bladder tumor tissue for insights

As a next step, Dr. Lerner and his team have been analyzing bladder tumor tissue samples from many of the trial participants to try to identify molecular profiles linked with survival.

Since Dr. Lerner presented the [results from the SWOG trial](#) at scientific conferences in 2023, he has been receiving feedback from colleagues.

“There seems to be widespread acceptance of the results, with some exceptions,” he said. “Some surgeons have expressed relief at no longer needing to do an extended node dissection in the patient population represented in the trial.”

The new findings, Dr. Kamat predicted, “will empower surgeons to avoid unnecessary harm, potentially leading to faster recovery and better quality of life for patients.”

This blog was published by the [National Cancer Institute](#) on November 6, 2024. It is republished with permission.