Sarcoma immunotherapy clinical trial reduces risk of relapse by 43%

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Credit: Anna Tarazevich from Pexels

For the last three decades, breakthroughs have been sparse for soft tissue sarcomas, which are rare cancers that affect muscles, fat and other connective tissues. A global team of researchers have announced clinical

trial results that point to a new immunotherapy treatment option for two of the most common types of soft tissue sarcoma in adults, a breakthrough that reduces the risk of relapse by 43% at two years and will likely impact clinical practice for these cancer types.

The research was presented at the 2024 American Society of Clinical Oncology Annual Meeting. The clinical trial, which was run by a SU2C Catalyst Research Team.

"Immunotherapies have transformed cancer care for many cancers, but in the 25 years I have been caring for sarcoma patients, we haven't seen any significant advances for these kinds of sarcoma. This study will change that," said David Kirsch, M.D., Ph.D., leader of the SU2C Catalyst Research Team and Head of the Radiation Medicine Program at Princess Margaret Cancer Center at the University Health Network in Toronto, Canada.

"From my point of view, this is the most important study for patients with these sarcomas in 30 years because it's addressing an important unmet need."

The trial, called SU2C-SARC032, evaluated outcomes of 127 participating patients across 20 hospitals in four countries—the United States, Canada, Italy and Australia. Since sarcoma is rare—it's diagnosed in around 15,000 people in the U.S. every year—enrolling a sufficient number of patients to test whether immunotherapy improved outcomes was challenging, explained Kirsch.

Over the course of six years—beginning in 2017—the researchers persevered to enroll enough patients, even as the COVID-19 pandemic slowed work considerably for many months. During that time, SU2C worked closely with the team to extend timelines and support the completion of the trial.

"It takes big ideas, unique collaborations—and in some cases, a global effort—to help bring breakthroughs to patients impacted by rare cancers ," said Julian Adams, Ph.D., president and CEO of SU2C. "We believed this could work with the SU2C Catalyst approach, support from our donor Merck, and input from the best minds in sarcoma research across the world."

Typically, the standard treatment for soft tissue sarcoma that has not spread, or metastasized, to other parts of the body is radiation followed by surgery. However, approximately 50% of patients with high-risk sarcomas subsequently experience cancer recurrence or metastasis after treatment.

A previous SARC-sponsored clinical trial in patients with established metastasis had shown that two common types of sarcoma—undifferentiated pleomorphic sarcoma and pleomorphic/dedifferentiated liposarcoma—can respond to the immunotherapy drug pembrolizumab.

"Sarcoma doesn't affect anywhere near the number of patients as breast, lung, prostate or colorectal cancer, but people impacted by sarcoma arguably need clinical trials even more," said Steven Young, president and CEO at SARC.

"SARC was delighted to have this research build on our prior trial to determine if we could achieve meaningful advances of novel treatment strategies that will profoundly impact the sarcoma community."

Patients in the SU2C-SARC032 trial were separated into two different groups: group 1 received the standard treatment of radiation therapy and surgery; group 2 received the immunotherapy drug pembrolizumab before, during and after radiation therapy, and they received pembrolizumab again after surgery.

The researchers closely followed all patients in the trial and evaluated results two years after each patient completed treatment. Results showed that the addition of pembrolizumab reduced the risk of relapse by 43% at two years.

Provided by Stand Up To Cancer