A Milestone for Lung Cancer Treatment

On June 3, 2018, Dr. Gilberto de Lima Lopes Jr., Associate Director of Global Oncology at Sylvester Cancer Center released the impressive results of an immunotherapy drug for lung cancer patients at the annual American Society of Clinical Oncology (ASCO) conference.

Lopes' Phase III trial involved more than 1,200 previously untreated patients with advanced or metastatic non-small cell lung cancer (NSCLC) with PD-L1 expression of 1 percent or more.
Patients treated with the immunotherapy pembrolizumab (Keytruda) lived longer and had fewer side effects than the study patients on standard chemotherapy.

Gilberto de Lima Lopes Jr., M.D., M.B.A., Co-leader Lung Cancer Site Disease Group, Sylvester Comprehensive Cancer Center

IMPACT

Sylvester's study contributed to FDA approval of the targeted therapy for lung cancer

These approvals establish a new treatment paradigm for this type of lung cancer, with immunotherapy becoming the preferred treatment over chemotherapy regimens for PD-L1-positive cancers. [1]

Patients have another option for treatment with greater efficacy and fewer side effects

"The era when chemotherapy was the only option for patients with NSCLC is drawing to a close. This study represents a true milestone for the field" [2]

John Heymach, M.D., Ph.D., MD Anderson Cancer Center

"These findings would change the way we practice and treat our patients" [2]

Bruce Johnson, M.D., Co-Lead, Dana-Farber/Harvard Cancer Center Lung Cancer Program

LUNG CANCER IS THE **LEADING** CAUSE OF CANCER DEATH IN THE UNITED STATES, WITH MORE THAN **200,000** AMERICANS DIAGNOSED WITH THE DISEASE ANNUALLY.[3]

FLORIDA IS PREDICTED TO LEAD THE NATION WITH 19,500 NEW LUNG AND BRONCHUS CANCER CASES IN 2022[3].

WHILE LONG-TERM LUNG CANCER SURVIVAL RATES REMAIN LOW, WITH **ADVANCEMENTS IN CANCER RESEARCH**, LUNG CANCER CAN NOW BE TREATED WITH TARGETED DRUGS BASED ON THEIR GENETIC CHARACTERISTICS.

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[1] American Society of Clinical Oncology Cancer Progress Timeline

[2] After ASCO 2018: Sylvester Presenter Among 'Cream of the Crop'

[3] American cancer society cancer facts & figures 2022

Changing Prostate Cancer Treatment Following Prostatectomy

As lead author of the SPPORT trial, Dr. Pollack presented findings that for men with evidence of return of prostate cancer after prostate surgery (prostatectomy), extending radiation therapy to the pelvic lymph nodes in combination with short-term hormone therapy had clear benefits over treating to the prostate surgical bed with radiation therapy only or the bed plus short-term hormone therapy.

The trial included 1,792 men from the U.S., Canada and Israel, that had persistent or rising prostate specific antigen (PSA) levels after prostate removal. The study found that after 5 years, the highest rate of patients free from disease progression was those who received all three treatments.

71.7% prostate bed radiation only
82.7% prostate bed radiation + hormone treatment
89.1% prostate bed radiation + lymph node radiation + hormone treatment

Alan Pollack, MD, PhD, Chair, Department of Radiation Oncology, Sylvester Comprehensive Cancer Center

"The results were so compelling that they were released ahead of schedule. At Sylvester, we quickly implemented changes to our prostate cancer treatment approach based on the findings — a paradigm shift that is already changing practice patterns internationally"

Alan Pollack, MD, PhD, Chair, Department of Radiation Oncology, Sylvester Comprehensive Cancer Center

260,000 NEW CASES OF PROSTATE CANCER ARE EXPECTED TO BE DIAGNOSED IN 2022[2]

AS MOST THE COMMON SITE OF CANCER FOR MEN, **34,500** MEN ARE ESTIMATED TO DIE FROM THE DISEASE THIS YEAR[2]

Background

Men with prostate cancer who undergo surgical removal of the prostate gland — often face signs of recurrence, usually signaled by a rise in the level of prostate specific antigen (PSA) in the blood. Radiation therapy to the region of the prior prostate surgery (surgical bed) is standard but only effective at keeping PSA low longer than five or more years in 60 to 70 percent of patients.

In all eligible patients followed for up to eight years, distant metastases were found in 45 patients in the radiation only arm, 38 patients in the radiation + ADT arm, and 25 patients in the radiation + ADT + radiation therapy to the pelvic lymph nodes arm. Distant metastasis rates were significantly lower following the three-treatment approach compared to radiation alone and compared to radiation alone + ADT [1]

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[1] Combined therapy including pelvic lymph node radiation provides significant benefit for prostate cancer patients
[2] American cancer society cancer facts & figures 2022

Artificial Intelligence Provides Game-Changing Intraoperative Brain Tumor Diagnostics

New cutting-edge technology that uses **artificial intelligence along with optical imaging is providing neurosurgeons a near real-time method of diagnosing brain tumors during surgery**, according to a collaborative study co-authored by neurosurgeons with Sylvester Comprehensive Cancer Center, part of the University of Miami Miller School of Medicine, published in the journal *Nature Medicine*.

"In many of our surgeries on malignant tumors, **the ability to remove all of the tumor makes a difference in a patient's overall survival,**" said Sylvester neurosurgeon and study co-author Michael Ivan, M.D., M.B.S.. "Artificial intelligence provides more rapid and frequent information to the surgeon while operating to ensure the boundaries of the surgical resection are clear of cancer."

IMPACT

- **With the novel technique, pathologists can achieve close to 100% ACCURACY.**
- **With the digitized process, diagnosis can be found in LESS THAN THREE MINUTES, compared to 20-30 minute traditional process.**
- **Patients have another option for treatment with greater efficacy and fewer side effects**
- **Centers LACKING EXPERT NEUROPATHOLOGISTS can benefit from the system's precise diagnostics.**

"It's really a step forward in providing rapid intraoperative diagnoses of malignant and benign tumors, which is essential information needed to make critical decisions during safe and effective brain tumor surgery,"

Assistant Professor of Neurosurgery, Chief of Service, Cranial and Neuro-oncology, Jackson South Community Hospital
Co-chair of Neurosurgery, Jackson South Community Hospital, Sylvester Cancer Center

Link to umiamihealth.org story

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Sylvester's New Outreach Vehicle a 'Game Changer' for Community Cancer Care

When the Sylvester outreach team discovered an alarmingly high rate of cervical cancer in Little Haiti, our experts joined with community members to increase the use of at-home devices to test for the human papilloma virus, which, left untreated, can lead to cervical cancer.

The practice is now a model for community-based participatory research that addresses health disparities through the promotion of culturally sensitive behavioral and social change.

Visitors of the Game Changer Vehicle can receive the following services for FREE

- Education about cancer and cancer prevention/early detection
- Screening for common cancers and other illnesses that increase the risk of developing cancer
- HIV testing (associated with multiple cancer including cervical cancer, blood cancer, and rare skin cancers)
- Counseling/referrals to other local resources and cancer prevention opportunities

Beyond offering cutting edge research and impeccable care, our team is working to help members of our community become strong, active partners in their own medical care. We understand that not all groups of people have the same health care access and resources, therefore, we conduct a lot of our research projects in our local community – and they're aimed at helping improve health care quality and access for everyone.

Since 2018, Sylvester has participated in over 2,100 community health events.

The Game Changer has facilitated screenings for over 3,300 individuals in underserved or hard to reach communities.

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