The Cohen Esophageal Cancer Initiative

Impact Summary: Esophageal Cancer

Generous donations from the Cohen Esophageal Cancer Initiative are bringing us closer to understanding esophageal cancer. This disease is considered rare, compared with cancers of the breast, lung, or prostate. Despite that, the number of people with one of the main types of esophageal cancer, called adenocarcinoma, has risen dramatically in the past few decades. At Memorial Sloan Kettering Cancer Center (MSK), thoracic surgeon Daniela Molena, MD, who directs our Esophageal Cancer Surgery Program, and her colleagues are making significant progress in esophageal cancer early detection and treatment and conducting novel research.

Refining the Care of Patients with Early-Stage Disease

Screening for Barrett's esophagus has led to an increase in the diagnosis of early-stage cancers over the last decade. Physicians are faced with the question of whether to treat them using a more advanced endoscopic procedure or partial esophagectomy that removes just the portion of the esophagus containing the tumor. Dr. Molena works as part of a multidisciplinary team at MSK to determine the best treatment for each patient with early stage disease—considering factors such as whether the cancer has invaded nearby lymph nodes, which raises the risk of recurrence and spread. When surgery is required, Dr. Molena is an expert in performing minimally invasive laparoscopy and robotic esophageal surgery. These operations can be performed through small incisions that result in less discomfort after surgery and enable the patient to recover more quickly than after traditional open surgery.

Esophageal Cancer in Women

Dr. Molena and her team performed research indicating that women with esophageal cancer may receive different treatment than men. In 2019, they showed that people with esophageal squamous cell carcinoma (SCC) who had previously received chest radiation therapy for

another cancer, such as breast cancer or lymphoma, were less likely to have smoked or abused alcohol and were more likely to be women. Many of them had been undertreated because they had previously received chest radiation. This study revealed that surgery alone resulted in poorer outcomes than if a patient had received neoadjuvant treatment. Similarly, in another study, Dr. Molena found that women who had esophagectomy were more likely to have SCC versus adenocarcinoma and a higher rate of prior radiation therapy to the chest and less likely to have received neoadjuvant treatment. The findings suggest that esophageal cancer in women is an area requiring further study.

Predicting Response to Treatment

Dr. Molena and her colleagues reported a study showing that certain genetic markers in tumors could be used to predict how well patients with metastatic esophagogastric cancers respond to particular chemotherapy regimens and immunotherapy. To perform the genetic analysis, they used MSK-IMPACT™—a technology invented here that detects genetic mutations in cancers, from the most common to the rarest. MSK is a recognized leader in precision oncology: identifying genetic mutations that cause an individual's cancer, and matching the patient with the most appropriate drugs that target these mutations. The results of such research could be used to select the most effective therapy for each patient based on a tumor's genetic profile.

The Cohen Family Legacy

The work of Dr. Molena and her colleagues is poised to improve the treatment of patients with esophageal cancers of all types and stages—from precancers to metastatic disease.

We are thrilled that the Cohen Esophageal Cancer Initiative has chosen to continue its extraordinary partnership with Memorial Sloan Kettering Cancer Center this year. Together we can make a giant leap forward—united we will bring powerful advances in care to patients and families everywhere living with esophageal cancer.