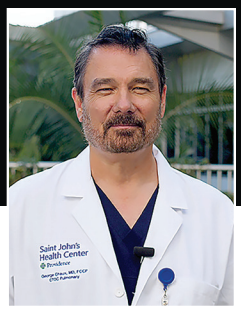
EXPERT CONTRIBUTOR

CHANGING LUNG CANCER TREATMENT

Pulse Electric Field Ablation—a gentler path forward



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In the journey against lung cancer, innovation is everything. Lung cancer is the leading cause of cancer-related death in the United States, impacting hundreds of thousands of lives each year. At Providence Saint John's Health Center, a new leading-edge treatment is offering patients a gentler path forward, with promising results and renewed hope.

Pulse Electric Field Ablation (PEF) is a relatively new therapeutic modality developed for the treatment of malignant tumors in the chest, abdomen and extremities. For several years, interventional radiologists have successfully used PEF to treat tumors in the chest or abdomen by inserting a needle through the chest or abdominal walls under computed tomography (CT) guidance. Its application in the lungs has been limited due to the risk of pneumothorax, air leaks and other complications—until now.

An innovation developed by Galvanize enables interventional pulmonologists to deliver PEF therapy through a patient's natural airways using a robotic bronchoscopy platform. This technology ensures pulmonologists can safely and precisely navigate instruments to the target tumor in the lung with the aid of a camera, guided by a patient's chest CT scan. While the patient is under general anesthesia, pulmonologists apply PEF ablation therapy into the tumor through a specialized needle developed for this purpose. The process is performed as an outpatient procedure, typically spanning 45 to 60 minutes and doesn't require an overnight hospital stay.

This approach can be used to treat tumors that originate in the lung or have spread to the lungs from other organs. Beyond targeting the primary targeted tumor, PEF may also introduce antigens from the treated tumors to the patient's immune systems, potentially allowing the body to fight cancer in other areas. Although PEF is considered a palliative therapy versus an intended cure, preliminary studies have shown promising results in affecting short- and long-term survival for patients with lung cancer.

Unlike traditional ablative therapies that rely on heat or cold temperatures to kill tumor cells, PEF ablation is non-thermal and therefore safer due to its limited effect on normal tissues surrounding treated tumor sites, especially when tumors are located near vital structures in the chest.

We are proud to offer PEF to patients with lung cancer and other forms of cancer affecting the lungs, who may otherwise have limited treatment options. As we continue to explore the full potential of this new technology, our team is committed to developing and participating in research studies to explore the overall efficacy of this approach and how it can complement other existing and effective cancer therapies.

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