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Mount Sinai launches clinical trial of imaging device for cancer surgeries

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Mount Sinai Health System has launched a clinical trial of a new imaging device for detecting head and neck cancer during surgery

The device, called Otis Wide Field OCT (by Perimeter Medical Imaging), is an ultra-high-resolution imaging system that can image tumor specimens in real time during surgery, allowing surgeons to remove all of the cancerous tissue during one procedure, rather than waiting for traditional pathology results to come in afterward, which can often lead to additional procedures.

Patients in the trial agree to have their tumors placed in the system for imaging, which is then compared to the standard pathology evaluation.

“State-of-the-art imaging platforms, such as the Otis system and others, will likely play a significant role in the future of head and neck cancer surgery. While traditional pathologic examination of tissues is the standard around the world, we need new technology to allow us to detect cancer and ensure adequate resection at the time of surgery,” explains lead investigator Brett Miles, DDS, MD, Associate Professor of Otolaryngology at the Icahn School of Medicine at Mount Sinai, and Co-Chief of the Division of Head and Neck Oncology for the Mount Sinai Health System. “Data from this study, and other projects in the optical imaging program, will help us understand how beneficial these technologies may be and drive future innovation during head and neck cancer surgery.”

Investigators from the Head and Neck Cancer Research Program at the Icahn School of Medicine at Mount Sinai are also conducting a high-risk HPV screening study, along with colleagues from Johns Hopkins University and three other institutions. The study, known as MOUTH, is a clinical trial to better understand how risk factors affect oral HPV infection rates. In this study, researchers are collecting samples of blood, saliva, and urine to test them for HPV antibodies. So far, approximately 630 samples have been collected, and patients who screened positive for high-risk HPV viral types are entering the close observational arm of the study, in which they will receive clinical visits and imaging, such as ultrasound and MRI, to monitor them for head and neck cancer. They will be monitored annually for the next five years. The study is currently open and enrolling patients.

“We are pleased to be participating in this groundbreaking study, and glad that patients are willing to participate in this work. Currently there exists no accepted screening method for HPV-related head and neck cancer, despite the fact that there are currently more cases diagnosed in the United States than cases of cervical cancer [which is also caused by HPV]. It’s truly an epidemic. In many cases the cancer is asymptomatic for significant periods of time, making the discovery of new detection methods vital. This study provides important information on who is at risk, and who needs additional follow-up for high-risk HPV infection in the head and neck,” explains Dr. Miles.