

SPEAKER 1: In patients that have pulmonary nodules that are worrisome for lung cancer that might be enlarging over time or have shown to be enlarging over time, biopsying those nodules is important to get a diagnosis. I have been doing bronchoscopy for over 20 years. I didn't think I would see robotic-assisted bronchoscopy, actually, in my career.

In the past, we've been using navigational technologies to access those nodules or to try to get close to biopsying those nodules. The problems with the technology of the past is that the scopes were too big. The tools were not good enough to stop the scope from flexing into a segmental airway.

So now we have robotic bronchoscopy, allowing us much better precision, much better control in the airway, much better anatomical alignment for the physician actually driving the scope. We're actually driving the scope with a gaming controller. And we're able to steer in any segmental airway that we want to.

The optics now are amazing and then the ability to have them displayed on a high-resolution monitor. And so we are seeing things we've never seen before. And the vision is excellent. I'm sure, 10 years from now, this is going to be standard, and everybody's going to have robotic bronchoscopy.

And some people are still wondering where its applicability really lies. But, for us, it's allowing us to take the lung back. Rather than having a CT-guided biopsy, we're able to get things from natural orifice.

So pulmonary nodules can really be anywhere. And sometimes they're actually outside the airway. But sometimes they're inside the airway.

Now that we actually have real vision and a smaller bronchoscope that can be driven with precision into these small airways, we are seeing more things than we've seen before. We are seeing, actually, these nodules that are either in the airway or they're abutting the airway causing a little bit of an indentation of the airway. We're able to then target our needle to that indentation so that we know we're in that nodule.

We're placing the target on the CAT scan, and then the robotic platform is helping us get to that target that we've placed based on an individualized patient's CAT scan. We're actually transposing the navigational system, the robotic system, with the CT scan of that particular patient. So the patient's individualized CT scan is inputted into our planning software for the robotic-assisted bronchoscopy, allowing us to go to exactly the targeted airway we need to go.

So it's much like driving upwards from a tree trunk into the tree. We want to make sure that we are at the target because this is important not only for diagnosis and tissue acquisition in the detection and treatment planning for lung cancer but, also, in the future, it's going to lead the way to tumor or nodule ablation where maybe somebody isn't a candidate to have surgery, and they have a lung cancer, and we can go right to that nodule and deliver some sort of therapy to shrink or get rid of the nodule. You have to be very detail-oriented because the setup is critical because, if you think about it, when you're doing the navigation, the robot's not telling us where to go. We're telling the robot where to go. And so, if our navigation and our targets are not set correctly, which we do, and if we're not driving correctly, we're not going to get to the target.

And each sample that we take, we actually have a person in the room that is trained in psychology and pathology that will look at that sample under the microscope to let us know if we're in truly the right place. And then we will continue taking a lot of sample because, these days, especially in lung cancer, it is not just about getting a diagnosis anymore. It's, now, we need to get more and more tissue to assess molecular characteristics of a particular tumor type so that immunotherapy, or personalized chemotherapy, those sorts of decisions can be made based upon the molecular profiling of a specific tumor. So the benefits to the patient are to hopefully avoid procedures that are more invasive that they didn't need and, ultimately, to not have surgery for something that isn't a cancer that they didn't need surgery for to diagnose.

We are happy to be pioneers and really being on the forefront of new technology and new technology that we can bring to patients and really to help improve the detection and diagnosis of lung cancer.