

[MUSIC PLAYING]

JULIE SILVERSTEIN: Washington University Pituitary Center at Barnes-Jewish Hospital is the first center in the area to offer coordinated care to patients with pituitary tumors.

RALPH G. DACEY, JR: What we want to do is give the best possible care for our patients with pituitary tumors and other pituitary related diseases. We think the way to do that is to have the best technology, to have a team that is multidisciplinary, based on a patient-centered approach to providing them exactly the care they need.

ALBERT H. KIM: The multidisciplinary nature of the pituitary center is critical for patient care and improves the success of how patients do because it allows seamless coordination among different disciplines for what are often very, very complex problems. Here at the pituitary center, we do anywhere from 120 to 140 surgical cases per year. And that does not include patients we also see that we manage conservatively, or with medications, or with other techniques, such as Gamma Knife radiosurgery, fractionated radiotherapy, or proton beam.

Of the technologies we have at this medical center, focus on our ability to enhance our vision, to distinguish abnormal from normal. So let's say, from endoscopes to intraoperative MRI, to GPS-like neuronavigation, to inferior petrosal sinus sampling by our neuroradiology colleagues. All of these are designed to enhance our vision and to make a safer surgery.

CHRISTINA TSIEN: So our role in radiation oncology is that with recent advances in imaging, as well as radiation technology, it really allows us to see the tumor and be able to target the tumor in ways that we couldn't before. And now that we know where the tumor location is, our ability to give highly conformal radiation has really improved significantly.

RAVINDRA UPPALURI: My role as a otolaryngologist is to provide the endoscopic approach to these tumors. I work with the colleagues in neurosurgery to help determine what the best access is for tumors. And we primarily use an endoscopic approach, where we use these telescopic cameras that are inserted in the patient's nasal cavity to do a minimally invasive operation to get to these tumors.

The intraoperative MRI is a critical adjunct of technique to the endoscopic approach that we are using. Combined with the very excellent visualization that we get with endoscopic view, the intraoperative MRI allows us to-- if you're in the middle of the operation-- go in and check to see if there are areas that we have not gotten to, that are visible on the MRI itself.

We could then go back in, while the patient's still asleep during the same setting. And using the MRI, guide us to get to tumor that we may have missed at the initial approach. So in the end, the patient ends up in one operation, getting complete tumor removal. The MRI is an absolute value adjunct for that approach.

MICHAEL CHICOINE: So the intraoperative MRI is really an amazing technology. It's a 6 ton magnet mounted on the ceiling in the operating room that comes into the surgical suite in a matter of about 90 seconds when the preparations are made. And then, almost in real time, we can get an image of how much tumor we've removed.

And if there is an incomplete removal before the patient is awoken, we can do a more complete resection or removal of that tumor. And that, in effect, potentially reduces the number of additional surgeries the patients may need, additional medical treatments they may need, and potentially might diminish or eliminate the need for radiation or other treatments for pituitary or other tumors.

ALBERT H. KIM: My laboratory is called the Laboratory for Molecular Neuro-Oncology. And we're interested in the molecular alterations that drive brain tumors, with the goal of developing novel therapies for draining brain tumors. So if we can identify the molecular underpinnings of these pituitary adenomas, then we could begin to develop targeted therapies, small molecule inhibitors, that specifically go after these tumor cells.

Research is important to the pituitary center because it enables us to find better biomarkers for aggressive tumors, number one. And number two, it will allow us to tailor therapies for individual patients, based on their mutational status in the future.

JULIE SILVERSTEIN: We conduct a monthly pituitary conference, which is attended by faculty, Fellows, residents, and medical students from endocrinology, neurosurgery, radiology, pathology, otolaryngology, radiation oncology. So it's really a time for everybody to come together. And we discuss interesting cases that we have seen. And we use it as an opportunity to learn from our challenging cases and improve our patient care.

LINDA SCHUMACHER: When they did the MRI, they discovered that I had a pituitary adenoma that was rather large. Currently I feel great. I have had no residual effects from the surgery. I'm really back to baseline, which is what I was hoping to get to.

Dr. Silverstein was my endocrinologist and she was wonderful. And she came to see me often in the hospital. I'm very grateful to Washington University physicians, to Dr. Kim, to everyone with whom I've dealt at Wash U. So in essence, yes, they saved my life. Of course, I'm grateful for that.

JULIE SILVERSTEIN: What makes our pituitary center unique is the outstanding coordinated care that we provide for patients. This is often a frustrating and challenging experience for patients. And when they come here to our center we make it seamless for them.

CHRISTINA TSIEN: When come here, they know that they're receiving the best treatment possible. And they know that all of the treatment options that are available are here at Washington University.

RALPH G. DACEY, JR.: I think we give great evidence-based care for pituitary disorders with a really outstanding team of people who are all committed to doing the best job for the patient. And that commitment to not only the patient, but also to excellence, that really makes me proud of the group that's here.