

Putting Patients *back* Together

The Art of Cancer Surgery and Reconstruction

BY PHILIP NYHUIS

In *The Empire Strikes Back*, the second Star Wars film, Luke Skywalker is lured into a lightsaber duel with Darth Vader, who cuts off Luke's right hand. Back on the medical ship of the Rebel fleet, a bio-mechanical hand seamlessly replaces the one destroyed by the traitorous Jedi. Today, what was science fiction in 1980 is reality at the Center for Cancer and Oncology Care at ECMC. At the Center's dedicated laboratory, a prosthetic hand and wrist complete with wires and connectors currently awaits its intended patient.

"We have a unique service here," says Thom Loree, MD, FACS, Chief of Department, Head & Neck Surgery and Plastic & Reconstructive Surgery. "Because we do the head and neck cancer surgery but we also do plastic and reconstructive surgery. We're the only ones in Western New York to do microvascular surgery. So if, for example, you need a new mandible due to cancer, a new jawbone, you take the fibula bone out of the leg and attach that and line up the blood vessels under a microscope. It's the only way to make a new jaw. Nothing else works. It's living bone. And the leg doesn't need the fibula.

"For breast reconstruction, we take the skin and fat from the lower abdomen and make breasts out of it. We also do tongue reconstruction. If someone needs a new tongue due to cancer, we can take a portion of the wrist, and hook up the nerve to the tongue. And it feels like a tongue. It's not perfect. It's not as good as what God made. But it's the Cadillac of tongue reconstruction. We offer speech and language pathology and for people that have to lose their larynx, we have voice rehabilitation. In addition, we do transgender surgery—male to female and female to male. We're the only ones doing this in the region. So the reconstructive surgery is a big part of this service." In fact, the Center maintains its own prosthetics laboratory where, in addition to hands and jaws, technicians create ears, noses, and other prostheses to replace body

parts that have been ravaged by cancer.

"Not having the ability to reconstruct people I think is a problem," says Dr. Loree. "Here, with the combination of chemotherapy and surgery, radiation, and reconstructive surgery, we can offer our patients a complete package of care. Cancer surgery used to be one of those things that people avoided because the appearance of patients was often alarming. And that's no longer the case. We can offer people the opportunity to put them back together again without being mutilated or disfigured." Yet plastic and reconstructive surgery is not limited to cancer patients at the Center for Oncology Care. Other patients include those suffering from birth defects, burns, trauma, infection, disease, and tumors; all of whom can regain a sense of normalcy, confidence, and emotional well-being in their lives.

"We also treat thyroid cancer and pituitary gland cancer, sinus cancer, melanoma—skin cancer—not just the head and neck but the rest of the body as well," adds Dr. Loree. "Anything that's malignant, we take care of it. The majority of cancer we take care of is squamous cell cancer and it's an epidemic now. Another cause of this kind of cancer, which is less well recognized, is often called chronic irritation and infection in the back of the throat which can eventually lead to cancer at that site."

In addition to head and neck oncology and plastic and reconstructive surgery, the Center also specializes in dental and medical oncology, maxillofacial prosthetics, breast oncology, and speech and swallowing therapy. Maureen Sullivan, DDS, is Chief of Department, Dentistry/Division of Oral Oncology & Maxillofacial Prosthetics and also in charge of most of the research at the Center. Dr. Sullivan, formerly Chief of Dentistry at Roswell Park Cancer Institute, has been involved in research including cancers of the oral cavity and head and neck and focusing on such areas as oral cancer screening and the management of oral premalignant lesions in

addition to participating in clinical trials.

“Recently, we’ve been working with AstraZeneca, who are creating drugs that work for melanoma,” says Dr. Loree. “We’ve got a 30 to 40 percent cure rate. And it used to be zero. This is a very exciting time to be a cancer doctor. I have patients who were seen at other national centers told they only have three months and three years later they’re still here and living a pretty good quality of life.”

In addition, the Center for Oncology Care Department of Head & Neck and Plastic & Reconstructive Surgery and Medical Oncology at ECMC was selected by AstraZeneca, a research-based biopharmaceutical company, to be among the first cancer treatment providers in the nation to take part in a clinical trial with an AstraZeneca investigational product. AstraZeneca is currently running studies in which ECMC is participating to determine the effectiveness and safety of this product in the treatment of patients with recurrent or metastatic squamous cell carcinoma of the head and neck.

“We are pleased that ECMC was selected as one of a small number of providers to participate in these trials,” said Ritesh Patil, MD, MPH, Oncologist, Jonah Center for Oncology and Hematology at ECMC, part of the Center for Oncology Care. “More importantly, we are hopeful that with our participation and that of the other providers and qualified patients, AstraZeneca will be able to find a new treatment option for patients with recurrent or metastatic squamous cell carcinoma of the head and neck.”

Under the leadership of Jennifer Frustino, DDS, PhD, Director of Oral Cancer Screenings & Diagnostics, the Center conducts a robust oral cancer prevention program directed to patients, dentists, and physicians. This program also includes both management of dental care to general oncology patients and screening, diagnosis, and management of oral cancer and premalignant lesions. Typically, early symptoms of head and neck cancers might include a painless lump in the neck, sores in the mouth that won’t heal, a long-lasting sore throat, dental extraction sockets that will not heal, and unexplained earache. Risk factors for these types of cancer include smoking, drinking, and prior HPV infection.

A quiet but deadly disease, oral cancer often exhibits no symptoms until after it has spread outside the mouth, typically to the neck. The earlier these cancers can be detected, the better the chances that they can be successfully treated. The ECMC Early Oral Cancer Detection and Diagnosis Screening Program is designed to detect head and neck abnormalities and cancers at the earliest and most treatable stages. Individuals at risk for head and neck cancer are currently eligible for screening as part of a research study entitled: A Biorepository and Databank for Identifying Biomarkers for Oral Cancer. The Department of Dentistry/Oral Oncology & Maxillofacial Prosthetics collaborates with the Department of Head & Neck/Plastic & Reconstructive Surgery, bringing surgeons and dentists together to diagnose, treat, and prevent these cancers.

Cancer, smoking, and sex.

Many cancers can be traced to smoking and sex. The number

one reason for head and neck cancers is in fact tobacco use. “But what started earlier and later reached an epidemic, was that people who had never smoked presented with the human papillomavirus [HPV],” says Dr. Loree. “We started seeing increases in the 1970s and it became obvious by 1995. Most of the cervical cancer in women is caused by the HPV virus. And it’s caused by a very specific strain of the virus—HPV 16. It’s been shown that it’s responsible for the majority of cervical cancer in women.”

According to the National Cancer Institute, two kinds of HPV abound. The non-cancerous, low-risk viruses that cause annoying warts around the mouth, throat, or genitals and are sometimes responsible for benign tumors in the air passages between the nose, mouth, and lungs. And then there are the high-risk HPVs—like HPV-16—that can cause cervical, anal, throat, and other cancers. The Center for Disease Control estimates that nearly everyone who has ever been sexually active will contract some form of HPV in their lifetime. Happily, several effective HPV vaccines now exist and the CDC recommends that all preteen girls and boys be vaccinated before being exposed to the virus. “Since the onset of immunization, even among a small percentage of the population, the incidence of these diseases is dropping, so the vaccination is working,” says Dr. Loree.

While he is proud of the capabilities and achievements of the Center for Oncology Care at ECMC, Dr. Loree hastens to deflect any personal credit for its success. Trained at Memorial Sloan Kettering Cancer Center, formerly in private practice in New York City, and then at Roswell Park for 17 years, Dr. Loree stresses the importance of team effort at the Center. “Most of my team—my partners Dr. Burke and Dr. Popat, and Dr. Sullivan who moved the dental service here—all came over here with me,” Dr. Loree points out. Mark Burke, MD, is part of the team of experts in the medical and surgical management of head and neck cancer and plastic and reconstructive surgery. Saurin Popat, MD, MBA, FRCSC, FACS, is Director of the Head and Neck Center and a distinguished surgeon with an international resume. Dr. Loree also credits the late Dr. Zale P. Bernstein, who founded the Jonah Center for Cancer Care & Blood/Immuno Conditions at ECMC and, in addition to the hospital administration, was a big part of creating the Center for Oncology Care.

Dr. Loree grew up in Clovis, New Mexico, where archaeologists first discovered the distinctive Clovis point arrowheads that date back to some 13,500 years ago. His father was also a surgeon and a friend of an archeologist who once took the young Thom Loree and his father to a gravel pit where a recent excavation had revealed a dramatic find—the rib bone of a mammoth embedded with a Clovis point. Current genetic studies have determined that 80% of all native people in the Americas were directly descended from the ancient Clovis people. While Dr. Loree is a modern former Clovis person, his medical and surgical skills are perhaps informed and nurtured by his other continuing earthly activities which include both adult hockey and weekly summer sailboat races on Lake Erie. “I also grow my own grapes and make my own wine,” says Dr. Loree. “But I don’t serve it to my friends.” 

