

UNIVERSITY OF MARYLAND MEDICINE

ROUNDS

Clinical and Research Updates from the *University of Maryland School of Medicine* and the *University of Maryland Medical Center*

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A TRADITION OF INNOVATION TAKES ON ESOPHAGEAL CANCER

When Whit Burrows, M.D., joined the University of Maryland 16 years ago, he looked forward to working at a cancer center that was at the forefront of the University's multidisciplinary esophageal cancer therapy.

Today the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center has only built on the tradition to becoming a highly developed program and remains one of the biggest centers nationwide for combination treatment of esophageal cancer. The degree of specialization and expertise has only become more pronounced and systematic through the years.

THOROUGH AND THOUGHTFUL CARE

Patients come to Maryland because we know how to take care of esophageal cancer in many, many different ways," says Dr. Burrows, an associate professor of surgery at the University of Maryland School of Medicine.

Depending on their cancer stage, patients may receive high-dose, concurrent chemotherapy and radiation therapy, followed by esophagogastrectomy. Despite the aggressiveness of that care, patients experience some of the lowest complication rates in the nation. | *Cont. p2*

The University of Maryland Medical Center (UMMC) offers one of the largest groups of thoracic surgeons in the region. Besides Dr. Burrows, the esophageal cancer team includes assistant professors of surgery: Shamus Carr, M.D., Gavin Henry, M.D., and Shelby Stewart, M.D., all under the leadership of Joseph Friedberg, M.D., Charles Reid Edwards, M.D. Professor in Surgery and Division Head of Thoracic Surgery.

“Just because patients are sent here with esophageal cancer doesn’t necessarily mean they’re going to undergo an operation. What it means is that they’re going to get a thoughtful, comprehensive approach to their problems,” says Dr. Carr, who is also associate chief of thoracic surgery at UMMC. It helps that team members “rub elbows and cross paths” with a core group of specialists in gastroenterology, thoracic surgery, medical oncology and radiation oncology.

UMMC has one of the largest groups of thoracic surgeons in the region.

Elsewhere, patients who receive multimodal care might have to trudge from one office to another across town. In contrast, at the University’s Marlene and Stewart Greenebaum Comprehensive Cancer Center, esophageal cancer specialists, including thoracic surgeons, medical oncologists, and radiation oncologists, “dance around the patient,” as Dr. Burrows describes it. One after another, they see the newly diagnosed patient, all in the same room in the thoracic oncology clinic and share their thoughts regarding the best treatment strategy. Afterwards, they meet to discuss the patient’s care.

Bruce Greenwald, M.D., a gastroenterologist whom Dr. Burrows describes as having “extreme expertise,” sees any undiagnosed patients for an endoscopy and determines cancer

stage. He performs endoscopic mucosal resections using a similar procedure, mitigating the need for an esophagectomy for some patients with early-stage cancer.

For many patients with more advanced esophageal cancer, the team of UM physicians provides high-dose, concurrent chemoradiation therapy followed by esophagectomy. Dr. Burrows praises the radiation and medical oncologists he works with as “very, very talented.”

The Maryland Proton Treatment Center (MPTC), one of only two proton therapy facilities in the Mid-Atlantic area that tackle esophageal cancer, opened in 2016 near UMMC’s campus at the University of Maryland BioPark. MPTC is the first proton therapy center on the East Coast to offer pencil-beam scanning, the most advanced form of proton therapy, in all its treatment

rooms. Its 90-ton cyclotron beams proton radiation that, unlike conventional photon radiation, can stop at the perimeter of the treatment area without penetrating farther because protons can be programmed to release their energy at a predetermined depth. This gives patients with esophageal cancer the advantage of receiving radiotherapy with a dramatically reduced effect on their heart and lungs.

For patients who need surgery, UMMC surgeons perform both open and minimally invasive esophagectomies. UMMC’s high esophagectomy volumes demonstrate the center’s experience, and patients benefit from the center’s unusually low complication and high survival rates among esophageal surgery patients.



KEY POINTS

- UMMC has long been known for treating esophageal cancer with combination therapy: high-dose, concurrent chemotherapy and radiation followed by esophagectomy.
- The medical center’s team of thoracic surgeons, one of the largest groups in the region, performs a high volume of esophagectomies and works with a multidisciplinary team of esophageal cancer specialists.
- The Maryland Proton Treatment Center delivers the most precise form of radiation therapy available, sparing vital organs during treatment for esophageal cancer.
- UMMC offers the spectrum of esophagogastrectomy from open to minimally invasive esophagectomy, which tends to ease short-term recovery and achieves long-term outcomes on par with those from open procedures.
- The medical center houses the Mid-Atlantic’s only inpatient dedicated thoracic intermediate care unit.

INNOVATIVE TAKES ESOPHAGEAL CANCER

LESS INVASIVE SURGERY

The newer, less invasive way to remove the cancer and rebuild the esophagus requires a smaller incision and lessens trauma to the chest wall or abdomen. Carr says patients – and even physicians – look at the small incision and wonder how he performed the surgery. Dr. Burrows describes Dr. Carr as “particularly skilled in the minimally invasive esophagectomy” (MIE).

Dr. Carr says that MIE is “no safer, nor is it any riskier” than conventional surgery. However, he says, the literature suggests that patients who have had MIE spend slightly less time in the hospital, use slightly less narcotic medication after they leave the hospital, and feel recovered sooner than those who received open esophagectomy. Dr. Carr hopes to be able to offer robot-assisted MIE in the near future.

Long-term results for MIE look similar to those for the open-chest procedure.

“Once you get out to six months, we can line up 10 of our patients, and you wouldn’t be able to tell who had open and who had minimally invasive surgery,” Dr. Carr says.

Of course, not all patients are candidates for minimally invasive surgery.

“Dr. Carr and I pride ourselves on being completely upfront with our patients about their expectations,” says Dr. Burrows.

If Dr. Carr or one of his colleagues offers the possibility of MIE to a patient, he or she is also psychologically prepared for the possibility that the surgeon will need to convert mid-procedure to the open approach.

SPECIALIZED POST-SURGERY CARE

Neither the esophagus nor the stomach is a vital organ, but Dr. Burrows tells patients that an esophagectomy “is a very challenging procedure to

recover from, even more so than some operations on vital organs like the heart or lungs.” Fortunately, UMMC’s specialized, comprehensive approach to esophageal cancer continues postoperatively.

After either open esophagectomy or MIE, immediate postoperative care takes place in UMMC’s dedicated thoracic intermediate care unit (TIMC) – a care model that is unique to UMMC in the entire Mid-Atlantic region. In the TIMC, patients receive care from a team of specially trained professionals, including nurses, nurse practitioners, physical therapists, respiratory therapists and dietitians.

They “know how to get a patient over this operation,” Dr. Burrows says.

Despite the challenges of esophageal cancer care, UMMC has achieved impressive results.

“We have the unique ability to really cover everything,” says Dr. Burrows.

From diagnosis to staging to multimodal care with the most advanced radiotherapy and surgical techniques, UMMC’s highly experienced team is continuing its tradition of innovative care.



To reach the thoracic surgery team, please call **410-328-6366**.

“Patients come to Maryland because we know how to take care of esophageal cancer in many, many different ways,”

– WHIT BURROWS, M.D. | Pictured Right

