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PERSONAL HEALTH | Jane E. Brody

## Finding, and Treating, Esophageal Cancer

Half a century ago, my grandmother died of esophageal cancer. For decades preceding her death, a bottle of milk of magnesia was her steady companion because she suffered daily from heartburn, now known as gastroesophageal reflux disease, or GERD. But many years passed before a link was clearly established between chronic irritation of the esophagus by stomach acid and this usually fatal cancer.

Now that the role of acid reflux is well known in cancer risk and unpleasant conditions like chronic cough and hoarseness, drug companies market several products, prescription and over the counter, that are far better able to control the backup of stomach acid than milk of magnesia. And gastroenterologists now know to be on the alert for early signs of trouble among patients who suffer from GERD.

The cancer that results from chronic reflux is preceded by a benign condition called Barrett's esophagus, a cellular abnormality of the esophageal lining that can become precancerous. If untreated, about 10 percent of patients with Barrett's esophagus eventually develop esophageal cancer, the nation's fastest-growing cancer. In the last four decades, the annual number of new cases has risen 300 to 500 percent.

The American Cancer Society estimates that 16,470 new cases of esophageal cancer will be diagnosed in this country this year and that more than 14,000 people will die from it.

Diagnosed early, well before patients develop swallowing problems, esophageal cancer is usually curable. A cure is most certain if the problem is detected and corrected before or during the advanced precancerous stage. But for about 90 percent of patients, early detection and treatment are missed, and the outcome is fatal.

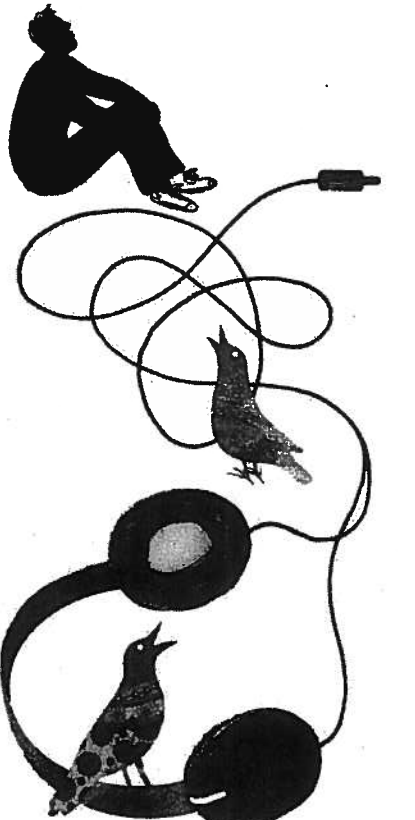
### Detecting Trouble

Unfortunately, the esophagus, unlike more accessible body parts like the breast and skin, is not very easy to monitor. In the traditional exam, called gastrointestinal endoscopy, the patient is heavily sedated, usually in a hospital, and a scope the diameter of a garden hose is inserted through the mouth into the esophagus.

For patients with GERD who have already developed Barrett's esophagus, annual endoscopy is recommended to check on the health of esophageal cells. If a biopsy indicates an impending or existing cancer, the usual treatment is a rather challenging operation in which all or part of the esophagus and the upper part of the stomach are removed and the remaining parts of the digestive tract are reattached.

Another technique uses light therapy to destroy the inner lining of the esophagus, which can result in scarring and strictures that impede swallowing.

After this treatment, patients must stay out of sunlight and direct artificial light for



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about six weeks to avoid a severe sunburn on exposed skin.

### New Methods

But now there are simpler and safer alternatives for both detecting and treating an esophageal problem even before it becomes a serious precancer.

A colleague who suffers from chronic reflux recently underwent the new detection method, called TransNasal Esophagoscopy, or T.N.E. It can be done safely and effectively in a doctor's office, and it does not require sedation or involve loss of a day's work. Nor does it leave the patient with a sore throat.

"Surprisingly easy," was how my colleague described it. "I had an exam that involved sending a tube, slim as a wire, with a camera, down through a nostril."

His doctor, Dr. Jonathan E. Aviv, medical director of the Voice and Swallowing Center at NewYork-Presbyterian Hospital/Columbia University Medical Center, said he and other ear, nose and throat doctors around the country started using the technique in the mid-1990s.

"Patients are examined awake, sitting upright in a chair," Dr. Aviv said in an e-mail message. "An ultrathin flexible scope, the size of a shoelace, is placed via the patient's numbed nose past the throat and then into the esophagus, thereby avoiding the powerful gag reflex which sits in the mouth."

Dr. Aviv described the technique as a

triple bonus: one that avoids the risk of anesthesia and loss of work time for patients, increases the efficiency of medical practice for doctors and reduces the costs to insurers.

Even newer than T.N.E. is a technique that can both diagnose and, using radiofrequency energy, treat abnormal cells.

Joseph Broderick of Hudson, Fla., had suffered for years with periodic attacks of reflux, especially after eating spicy foods.

"I had a bottle of Maalox at the ready to quiet it down," Mr. Broderick, 77, said in an interview.

At his doctor's suggestion, he underwent a traditional endoscopy and esophageal biopsy, which revealed the presence of Barrett's esophagus. He was prescribed medical, dietary and behavioral treatment to control reflux and told to return a year later for another test.

But before the second test, he began having pain in his chest. This time, the endoscopy and biopsy found advanced dysplasia, a cellular abnormality that can progress to cancer without warning. A repeat exam three months later found no improvement, and an operation was recommended.

First Mr. Broderick sought a second opinion from Dr. John E. Carroll, a gastroenterologist and assistant professor of medicine at Georgetown University Medical Center. Given the treatment options, Mr. Broderick said the choice was a no-brainer: burn out the precancerous cells with radiofrequency energy before they become invasive cancer.

The therapy uses a device, produced by BARRX Medical of Sunnyvale, Calif., that fits on the tip of a gastroscope, with a balloon that expands to fill the esophagus. The device, which has been approved by the Food and Drug Administration, is coupled to a generator that emits radiofrequency energy deep enough to burn off the inner lining of the esophagus. Normal esophageal cells then form to replace the destroyed cells.

### Prevention

In a report published this year in the journal *Gastrointestinal Endoscopy*, cellular abnormalities were eliminated in 98 percent of 70 patients with Barrett's esophagus who were treated at eight medical centers around the country. The improvement lasted the duration of the study, up to two and a half years.

In a second study by the same multicenter group, 142 patients with advanced dysplasia were treated. The precancerous condition was eliminated in 90 percent, and the Barrett's cells were destroyed in 54 percent of the patients at one year.

The question now is whom to treat with this technique, since most people with Barrett's esophagus never get the cancer.

"The trouble is, there's no predicting which patients will progress to cancer, and when they do, it's a major cancer that spreads quickly," Dr. Carroll said. "So I believe this will become a treatment option for most patients with Barrett's."