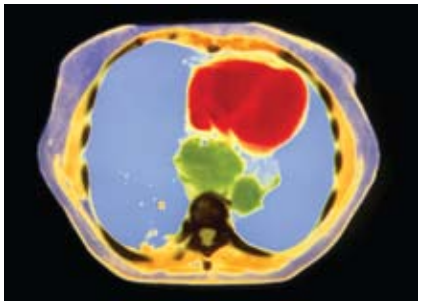

Using a palliative approach to maintain nutrition and reduce discomfort in patients with EC

Bette Weinstein Kaplan

The incidence of cancer of the esophagus is rising more rapidly than any other malignancy.[1] The disease affects males 4 times more often than females and is the seventh leading cause of cancer death in men. Esophageal cancer (EC) is most common in African American men and in people aged 45 to 70 years. The National Cancer Institute (NCI) estimates 17,460 new cases of esophageal cancer will be diagnosed in 2012, and EC will cause 15,070 deaths.[2]

Esophageal cancer develops as one of two main types: adenocarcinoma, which is more prevalent in the United States, and squamous cell carcinoma, which is more prevalent in other countries. More than 60% of esophageal carcinomas are adenocarcinomas, and its incidence is increasing.[3] Patients with Barrett esophagus are particularly prone to developing esophageal adenocarcinoma. Refluxed stomach acid causes the mucus-producing glandular cells in the lower esophagus to become column-shaped—the hallmark of Barrett esophagus. These columnar cells can eventually become malignant as adenocarcinoma.[3]

Squamous cell carcinoma, originating in the squamous cells comprising the surface layer of the esophageal lining, can occur anywhere in the esophagus. The incidence of squamous cell carcinoma in the United States has been decreasing; and it is now the cause of less than 40% of all US cases of EC.[3] Throughout the rest of the world, especially China and other parts of Asia, however, squamous cell carcinoma is the more common type of esophageal malignancy.

Although not all causes of EC are known, the leading risk factors are Barrett esophagus, GERD, obesity, alcohol consumption, and smoking and chewing tobacco use. Radiation treatment to the upper abdomen or chest can also cause EC, as can consuming very hot beverages, foods preserved with nitrates or lye, and pickled vegetables.

> More than 50% of patients with EC have incurable disease.

Curative treatment of EC consists of surgery, radiation therapy, chemotherapy, or a combination thereof. More than 50% of patients with EC have incurable disease.[4] Therefore, palliative care may be the only option for many patients.

PALLIATIVE CARE OPTIONS

Esophageal cancer symptoms are troublesome and debilitating. Patients' quality of life (QOL) can be improved by initiating palliative therapy at any point in the disease process. Dysphagia caused by stricture or obstruction is the most common symptom, occurring early in the course of disease and in more than 70% of patients with EC.[1] This symptom can be managed in a number of ways.

Dilation can significantly improve swallowing, and patients can undergo the procedure several times. Self-expanding metal stents (SEMS) are also successful in relieving obstruction. Madhusudhan and colleagues found that palliative stenting with SEMS significantly improved all scales of QOL with no mortality and acceptable morbidity.[5] Other therapies that effectively reduce symptoms and ensure patient comfort include photodynamic therapy (PDT), radiotherapy, and argon plasma coagulation (APC).

Photodynamic therapy uses injected photosensitizers and specific wavelengths of light to reduce the tumor, and the targeted therapy can also destroy blood vessels that supply the tumor.[6] The therapy is effective; however, it provides only short-term relief.

Radiotherapy Radiation therapy and high-dose-rate (HDR) brachytherapy are effective; however, these modalities can cause the typical side effects seen in patients who undergo radiotherapy such as skin reactions, pain at the radiation site, and gastroenteritis.

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Argon plasma coagulation is also effective at resolving an obstruction; however, again, its effects last only for a short while. Rupinski and colleagues compared argon plasma coagulation of the esophageal tissue alone with APC combined with another recanalization method—HDR brachytherapy or PDT—in 93 patients with inoperable EC.[7] The primary end point was a dysphagia-free period. Secondary end points were survival, improved QOL, fewer treatment-associated complications, and improved treatment tolerance. The combination therapies were well tolerated, and the investigators found that APC with HDR brachytherapy or PDT was significantly more efficient than APC alone. In addition, patients who received APC with HDR brachytherapy had fewer complications and improved QOL than did patients who received either APC with PDT or APC alone.[7]

Endoscopic ablation Newer technologies such as radiofrequency ablation, endoscopic mucosal resection, and cryotherapy have further expanded the palliative armamentarium for EC.[8]

Chemotherapy alone or in conjunction with radiation therapy may reduce the size of some esophageal obstructions.

Enteral feeding Percutaneous gastrostomy or jejunostomy may be necessary to achieve comfort and maintain proper nutrition. These procedures can improve the patient's condition and ability to tolerate chemotherapy or radiation therapy.

ADDITIONAL CARE

In addition to the disease-specific palliative interventions discussed above, standard palliative interventions that improve comfort and quality of life for patients with cancer of the esophagus can be used by the palliative care team. Patients should be educated to choose easy-to-swallow foods such as milkshakes, yogurt, or ice cream and to eat smaller meals throughout the day. General palliative therapies such as music, relaxation, or massage also offer palliative benefits to the patient coping with esophageal cancer. ■

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