The medical dictionary defines aphagia as the refusal or loss of ability to swallow. There are several causes for this tragic medical condition. This presentation will discuss our experience with an increasingly common cause of this condition that often follows curative radiation and chemotherapy, and in some cases, combined with surgery, for cancer in the head and neck region.

Many remarkable advances in medical diagnosis and therapy have occurred over the past two decades. Most have been of benefit to a wide array of illnesses. These innovations in pharmacology, biochemistry, serology, imaging methods, surgical technique, endoscopic diagnosis and therapy have in rare instances, resulted either directly or indirectly, in harmful side effects. The purpose of this presentation is to review experience over the past twenty years with a condition occurring as the direct result of modern, effective, curative radiation/chemotherapy, with or without surgery, and an indirect effect of the success of percutaneous endoscopic gastrostomy (PEG), i.e., a feeding tube placed through the abdomen directly into the stomach, used as a route to restore and maintain adequate caloric intake in patients unable to swallow.

The increasing frequency of total obstruction of the swallowing passage and the magnitude of its deleterious result upon patients who have already endured the anxieties and side effects of therapy for cancer of the tongue, larynx and pharynx, including the upper esophagus, deserves emphasis. Recognition of this potentially reversible, but sometimes disastrous, occurrence by all physicians including otolaryngologists, surgeons, medical and radiation oncologists, gastroenterologists and patients, may help either in its prevention or early recognition and therapy.

The problem at hand is benign total pharyngoesophageal lumen occlusion following successful radiation/chemotherapy, and surgery in some cases, for head and neck cancer, i.e., squamous cell carcinoma of the tongue, pharynx, larynx, cervical esophagus and less often, other sites. The typical scenario is that of a patient who received a PEG tube prior to, or soon after, radiation and chemotherapy.

During therapy, as expected, the usual mucositis (inflammation of the surface tissue of mouth, pharynx and esophagus in the head/neck region), develops and results in odynophagia (painful swallowing) and dysphagia (difficult swallowing). This inflammatory response is not considered a complication, but is a regular potential occurrence with successful cancer therapy. The patient typically develops throat pain, odynophagia, dysphagia, and receives appropriate standard symptomatic therapy with the exception of encouragement to try to swallow as much food as possible. This effort will help to maintain an open swallow passage and muscle function.

Another important consideration is early dilation (stretching) to keep the surfaces of the throat passage (lumen) from becoming adherent with adhesions that result in closing the lumen. When the dysphagia presents, or progresses to aphagia, during or soon after completion of the course of radiation therapy, the patient should be completely evaluated. Early swallowing therapy and possible dilation should be considered. When evidence of lumen narrowing is detected by barium x-ray contrast study, after termination of radiation/chemotherapy, a plan for dilation therapy should be instituted. Instead of this approach, some patients are reassured by their therapists who state, “Don’t worry; your swallowing will improve in a few more weeks”. It is difficult soon after cancer therapy to predict which patients will develop severe obstruction that requires dilation with or without neuromotor (nerve-muscle) dysfunction.

In the years before PEG nutrition was available, the combination of dysphagia and weight loss was much more ominous for the patient’s overall health and nutrition and served to create sufficient concern to provoke prompt evaluation and therapy. The presence of dysphagia after therapy often led to early dilation and preservation of lumen patency sufficient for adequate oral intake unless there was also a concomitant loss of pharyngeal neuromotor function as a consequence of radiation and chemotherapy. The increasing frequency of this sequela, i.e., total or near total lumen occlusion with aphagia, justifies the need for concern.

Dysphagia or aphagia occurring under these circumstances must be treated early and adequately after radiation/chemotherapy regardless of the patient’s healthy appearance that has been assured by the alternative feeding route via PEG with enteral nutrition. In our series, the average delay in referral of patients for evaluation of endoscopic lumen restoration (ELR) is 8.2 months (range 2 weeks to 27 months) after onset of aphagia.

The miseries of aphagia include the need to spit all saliva into a cup or tissue, the risk of bronchitis or pneumonia from throat contents being aspirated into the lungs, poor oral and dental hygiene, and the loss of the pleasures of eating with the associated social incapacities.

The outcomes of treatment of aphagia after radiation and...
AVOID HOLIDAY HEARTBURN

During the holidays, rich foods, large meals and alcohol can lead to attacks of heartburn.

Heartburn is a term that is sometimes misleading. It has nothing to do with your heart. Heartburn results from a backup of acid-containing stomach contents into your esophagus (feeding tube).

Ten percent of healthy people have at least one episode of heartburn each week. Here’s what you can do to reduce heartburn:

**Eat smaller meals** – Too much food expands your stomach and puts pressure on a band of muscle (esophageal sphincter) that helps keep food in your stomach.

**Avoid alcohol, fatty foods, chocolate, peppermint and peppermint** – These foods can relax your esophageal sphincter and promote upward flow of stomach contents.

**Use an antacid** – People most often take over-the-counter antacids to relieve symptoms of heartburn. But, an antacid also can help prevent symptoms. Take it after meals and before bedtime.

Don’t eat before sleeping – Wait two to three hours after eating before lying down. This allows enough time for increased stomach acid produced by your meal to taper off.

Wear loose clothes – A tight belt, girdle, or waistband can cause heartburn.

Stop smoking – The nicotine from cigarettes can relax your esophageal sphincter.

**Elevate the head of your bed** – Raise the head of your bed 4 to 6 inches. This helps keep stomach acid in your stomach where it belongs.

When the holidays are over, if you are overweight, make a commitment to lose weight. Trimming down helps reduce the pressure your abdomen puts on your stomach when you are lying down.

If you are taking acid suppressing medication such as PPI drugs (AcipHex, Nexium, Prevacid, Protonix, Zegerid) or H2 blockers (Pepcid, Zantac), be sure to take them on schedule as directed. **PPI drugs should be taken 30 or more minutes before a meal.**
Coffee and tea are believed to cause gastroesophageal reflux; however, the effects of these beverages and their major component, caffeine, have not been quantified. The aim of a study several years ago was to evaluate gastroesophageal reflux induced by coffee and tea before and after a decaffeination process, and to compare it with water, and water containing caffeine.

Three hour ambulatory pH monitoring (measurement of acid in the esophagus) was performed on 16 healthy volunteers who received 300 ml of regular coffee, decaffeinated coffee or tap water. Six volunteers received normal tea, decaffeinated tea, tap water, or coffee adapted to normal tea in caffeine concentration. There were 8 who received caffeine-free and caffeine-containing water together with a standardized breakfast.

Results: regular coffee induced a significant gastroesophageal reflux compared with tap water and normal tea, which were not different from each other. Decaffeination of coffee significantly reduced gastroesophageal reflux, whereas decaffeination of tea or the addition of tea to water had no effect. Coffee adapted to normal tea in caffeine concentration significantly increased gastroesophageal reflux.

Conclusion: coffee, in contrast to tea, increased gastroesophageal reflux, an effect that is less pronounced after decaffeination. Caffeine does not seem to be responsible for gastroesophageal reflux which must be attributed to other components of coffee.


Lecture Presentations by CSD Staff
Dr. Boyce served as moderator of a symposium on Types, Techniques and Complications of Dilation in Benign Pharyngeal and Esophageal Disorders, and also presented a lecture on Endoscopic Lumen Restoration at the 8th World Congress of OESO in Avignon, France, September 3-6, 2006.

Dr. Boyce was a discussant at the First International Gastrointestinal Eosinophil Research Symposium in Orlando on October 17-18, 2006.

Professional Activities by CSD Staff
Dr. Boyce has been appointed a member of the Permanent Scientific Committee, Section of Endoscopy, of OESO, the World Organization for Specialized Studies on Diseases of the Esophagus.

DAVID S. ESTORES, JR., M.D.

The Swallowing Center is pleased to announce the addition of David S. Estores, Jr., M.D., Assistant Professor of Medicine, as the third physician on our medical staff. Dr. Estores completed a Fellowship in Gastroenterology and Hepatology at the University of Pittsburgh Medical Center in Pittsburgh, Pennsylvania in 1992. He joined our faculty from the University of Miami School of Medicine, where he served for six years and will serve here as the Director of our Esophageal Physiology Laboratory. He is certified by the American Board of Internal Medicine in the subspecialty of Gastroenterology.
THINGS TO REMEMBER

1. **OFFICE HOURS:** 8:00 a.m. until 5:00 p.m. Monday through Friday. Telephone hours: 8:00 a.m. until 5:00 p.m.
   
   Our telephone number is 813-974-3374. Also, our after hours emergency telephone number is 813-974-2201.

2. **BILLING:** Payment for services rendered is due at the time of your visit. Please be prepared to pay any co-payments due at the time of your visit to the Center.

   Patients who have problems with their facility or physician fee bills should contact Gayle Stephens, Financial Specialist, at the University of South Florida Medical Clinics at 813-974-3575 between the hours of 9:00 a.m. and 4:00 p.m. Monday through Thursday.

   For those patients who are from out-of-town, a new toll-free number has been added for any billing questions. The number is 1-888-873-3627. This number is for calls originating in Florida and is only for billing questions and help with insurance authorizations.

3. **HAS YOUR INSURANCE COMPANY OR PRIMARY CARE PHYSICIAN CHANGED?** With an ever changing medical insurance market (shopping for the best contract, companies merging, others closing their doors, etc), you may have changed your insurance. If you have changed your insurance company, you may have a new primary care physician. Maybe you have moved and had to choose a new doctor closer to your home. Regardless of the circumstances, we would very much appreciate your contacting our office to let us know at 813-974-3374. This will not only insure we can obtain the necessary authorizations/pre-certifications and that your medical bills go to the right insurance company, but it will help us make sure your medical records are forwarded to the right doctor. Thank you for helping us keep the records straight.

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**MEDICAL STAFF**

**Director** .......................... H. Worth Boyce, M.D.
Hugh F. Culverhouse Chair in Esophagology

**Physician Staff** ........................... Milton C. Johnson, M.D.
Associate Professor of Medicine
Director of Interventional Esophagology

David S. Estores, Jr., M.D.
Assistant Professor of Medicine
Director, Esophageal Physiology Laboratory

**Patient Care Coordinator** ............... Janet L. Jones, B.A., CGC
Instructor, Department of Internal Medicine

**Assistant Patient Care Coordinators** ........ Betsy J. Lamoy, R.N.
Zandra V. Gadsden, LPN

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Administrative Secretary ........................... Natalie A. Ralyea
Research Assistant ............................ Matthew C. Hatler, B.S.

**Speech Pathology Consultants for Oropharyngeal Swallowing Disorders**

Speech Pathology ............................. Joy E. Gaziano, M.A., CCC/SLP
Linda Stachowiak, M.S., CCC/SLP
Melissa K. Czapla, M.S., CSY/SLP

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