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DYSPHAGIA – DIFFICULTY SWALLOWING

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Literally translated, dysphagia represents a combination of “dys” (a prefix from Greek meaning bad, difficult or disordered) and “phagia” (a Greek word element that means eating or swallowing). The sensation of dysphagia, a delay or difficulty with passage of solids or liquids, always occurs within ten seconds of the onset of a swallow. It is never psychogenic, i.e. it is not something “from your mind or not real”. The medical history, observation of swallowing, and timing the onset of dysphagia are exceedingly reliable for diagnosis and will be accurate in from 80 to 90 percent of instances, as to the mechanism involved, its location, and whether the cause is benign or malignant. Whatever the etiology or level of the dysfunction or obstruction, the physician is fortunate because the medical history is so accurate in determining the type and location of the problem. If the physician listens to the patient's description of the problem and asks the appropriate questions, the diagnosis usually will be apparent.

Types of Dysphagia: The three major types of dysphagia may be categorized as transfer, transit (or transport) and obstructive. Transfer dysphagia represents a pathological alteration in the neuromotor (nerve-muscle) mechanism of the oropharyngeal (mouth-throat) phase of swallowing. During this phase, that lasts less than one second, the bolus of liquid or solid is transferred from the mouth via the pharynx into the upper esophagus. Transit or transport dysphagia is due to abnormal nerve-muscle function in the body of the esophagus. This problem is classically represented by achalasia, a disorder characterized by absent primary and secondary propulsive motility (peristalsis) through the body of the esophagus, increased pressure and incomplete relaxation of the lower esophageal sphincter (valve between esophagus and stomach). During this phase the bolus is normally transported through the esophagus into the stomach in less than 10 seconds. Other causes include spasm and loss of muscle function as in scleroderma. Obstructive dysphagia is caused by mechanical narrowing (stenosis or stricture) in the pharynx, upper sphincter, esophageal body, or lower esophageal sphincter region. This blockage may be caused by strictures due to acid injury, cancer, webs, rings or compression of the esophagus from the outside.

Patients with dysphagia typically do not report to their physicians for several months after the onset of dysphagia. It is

characteristic for the patient to ignore the early warning symptoms and signs of partial esophageal obstruction and report only after the sequelae are so severe that they become embarrassing or intolerable. As long as patients are able to develop methods to compensate and maintain a reasonable state of nutrition, they may deny the existence of any significant problem and fail to seek medical attention, for as long as 70 years in one of our patients. Patients with chronic esophageal obstruction often learn the “tricks of the trade” in order to maintain reasonably good nutrition and avoid medical attention. They may take only liquid or soft foods or cut up solid foods, may extend mealtime up to 90 minutes, typically will chew food for extended periods before swallowing, and “wash down” this well-chewed food with large amounts of liquids. On occasion, complete obstruction by food impaction occurs acutely, not uncommonly during a social outing or restaurant meal. This patient presents to the physician with a difficult problem for evaluation and urgent treatment. Fortunately, most instances of acute obstruction are related to obstruction due to benign disorders or rarely, a motility abnormality.

The astute physician can not only diagnose the likely etiology by history but also, based on history alone, predict the location of the lesion in many patients with obstructive dysphagia. The major difficulty in diagnosing the level of esophageal obstruction is the fact that a significant number of patients with obstructions in the lower two-thirds of the esophagus will sense the blockage at the base of the neck. If, however, they sense the blockage in the chest at a level along the course of the lower esophagus, the level of sensation usually coincides with the site of obstruction.

Sialorrhea: Any patient with acute or chronic severe esophageal obstruction of any etiology, except those with xerostomia (dry mouth related to oropharyngeal radiation therapy or Sjogren's syndrome) will have sialorrhea. Sialorrhea means excessive production or flow of saliva. Most patients and some physicians do not understand that the “foamy mucus” patients complain of and relieve by frequent spitting, is saliva that is overly secreted in reflex response to the failure of the esophagus to empty.

Neuromotor Disorders: The patient with a neuromotor disorder affecting the pharynx or throat (transfer dysphagia) typically presents with a history of first having dysphagia with liquids that cause cough with swallows while solids may pass without significant difficulty. The most common cause of this particular syndrome is cerebral vascular disease that results in stroke or problems with scarring after radiation therapy for cancer of the mouth, throat or larynx. Other rare disorders such as bulbar polio, myasthenia gravis, polymyositis, oculopharyngeal muscular dystrophy, and botulism all may manifest transfer dysphagia as a major symptom.

Achalasia has no known cause and results in the loss of esophageal muscle function or peristalsis plus increased pressure and incomplete relaxation of the lower esophageal sphincter in response to a swallow. Patients with achalasia typically have dysphagia for both liquids and solids appearing simultaneously due to transit or transport dysphagia, as the first clinical evidence of this disorder. Achalasia occurs at both extremes of age, but most patients will be between the third and sixth decade at the time of diagnosis, often having dysphagia for many years before their first visit to the physician.

Esophageal Obstruction: The patient with mechanical obstruction typically develops difficulty first with solids of large bolus size and subsequently may progress to the point of difficulty swallowing even clear liquids or salivary secretions (obstructive dysphagia). Some individuals who have stable degrees of narrowing never develop progressive dysphagia and only under specific circumstances will notice delay or hang-up of an esophageal food bolus, usually related to carelessness or inebriation while eating, or have repeated transient episodes of dysphagia never severe enough to force them to seek medical therapy. When there is progressive inflammatory reaction or cancer growth accounting for the obstruction, the patient develops progressive dysphagia over a period of weeks to months. If dysphagia occurs regularly with solid foods, the physician can accurately predict that the esophageal lumen or opening is narrowed to at least 50 percent of its usual diameter. It should be well known among clinicians that the critical lumen size for persistent solid food dysphagia is 13mm (about 1/2 inch) or less. The tragedy of this situation is that dysphagia may begin when there is probably no more than 20 or 30 percent loss of potential lumen diameter at most. At this early stage, the symptom usually is ignored by the patient because it is perceived only as a sensation of a transient delay in passage of a food bolus. Dysphagia either is not bothersome enough to bring the patient to medical attention, or is simply denied as being of any consequence. Benign strictures progress rather slowly, rarely are associated with significant weight loss, usually are the result of reflux esophagitis, and are nearly always treated adequately by esophageal dilation. Malignant strictures on the other hand, typically are progressive once dysphagia appears and are associated in nearly every instance with a history of weight loss before the patient seeks medical attention. Unfortunately, most patients with esophageal obstruction due to cancer have significant dysphagia for 3 to 6 months before diagnosis.

Patients with esophageal obstruction nearly always will have difficulty in swallowing at least one of the following foods: meat, especially beef that has been charcoal grilled, apples or fresh bread; white meat of chicken and turkey are poorly tolerated also. The patient may very well continue to eat fresh bread, but usually has learned to toast it so that it will crumble with chewing and pass the stricture more easily.

Breads that are not toasted tend to produce a dough ball after chewing that serves as an effective obstructing bolus when the patient attempts to swallow it. If the patient is able to eat an apple, it is certain they have learned to peel it first.

With careful attention to the patient's history as reviewed above, both physician and patient hopefully will proceed with proper evaluation that can in most instances lead to a correct diagnosis, appropriate therapy and symptom relief. After a thorough history is obtained the best next step is either a modified or standard barium esophagram (or swallow) followed by endoscopy for a direct view and biopsy if indicated. When a neuromuscular transport or transit problem is suspected an esophageal manometry study is indicated.

3RD ANNUAL POSTGRADUATE COURSE

*Barrett Esophagus and Adenocarcinoma:
Management Strategies from Reflux to Resection
December 6-8, 2001*

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For further information contact: University of South Florida, Office of Continuing Professional Education, P.O. Box 550610, Tampa, FL 33655-0610, or fax to: (813) 974-3217 or register online at: www.cment.med.usf.edu.

Communication Between Primary Care Physicians (PCP), Specialists and Patients is Critical to Proper Care

Health care decisions are the shared responsibility of members, their families and health care providers. It is the primary care physician's responsibility to coordinate all care, including the authorization of referrals to specialists and review of the specialist's findings.

- For the specialist to have a clear understanding of why a member has been referred, the PCP must provide the specialist with any pertinent medical information and related test results prior to their consultation. PCPs should see the patient before they issue a referral. Specialists should provide medical services that conform to community-accepted practice standards and are within the ethical principles and scope of their professional license. Interim and final consultation reports should be sent to the PCP in a timely manner.
- Without a thorough exchange of information between the consulting specialist and the referring PCP, the patient is the only source of information. However, patients may not be a reliable source since they are not aware of all the medical details.
- In one case cited the PCP did not send enough medical information, the patient did not provide an adequate history to the specialist, and the specialist did not let the PCP know that he received inadequate information. Such breakdowns in communication could prevent patients from receiving the most effective health care services.
- Timely exchange of pertinent medical information between physicians is essential in providing good health care.

This information was extracted from an article in the September 2001 issue of BlueLine, a publication of Blue Cross and Blue Shield of Florida's North Geographic Business Unit.

CONTINUING MEDICAL EDUCATION

The Center for Swallowing Disorders has continued active participation in graduate medical education by lectures at regional, national and international meetings and by contributions to the medical literature.

Lecture Presentations by CSD Staff

December 2-4, 1999: CSD Postgraduate Course, Esophagology for Clinicians: Pathophysiology, Diagnosis & Therapy: 1) Esophageal Anatomy – Gross, Radiographic, Endoscopic, 2) Columnar-Lined (Barrett) Esophagus (CLE), Endoscopic Diagnosis and Chromoendoscopy, 3) Achalasia: Endoscopic Diagnosis and Chemical (Botox) Denervation of the LES - Techniques, Results & Complications, 4) Management of Esophageal Strictures: An “Objective” Medical Opinion Regarding Therapy of Severe Benign Esophageal Strictures, 5) Endoscopic Diagnosis of Non-Reflux Esophagitis. Orlando, FL. (Boyce)

December 2-4, 1999: CSD Postgraduate Course, Esophagology for Clinicians: Pathophysiology, Diagnosis & Therapy: Workshop: Organization and Operation of a Comprehensive Swallowing Center, A 10 Year Experience. Orlando, FL. (Boyce)(Jones)

December 2-4, 1999: CSD Postgraduate Course, Esophagology for Clinicians: Pathophysiology, Diagnosis & Therapy: Esophageal Physiology & Manometry Basics. Orlando, FL. (Helm)

December 2-4, 1999: CSD Postgraduate Course, Esophagology for Clinicians: Pathophysiology, Diagnosis & Therapy: Workshop: Esophageal Endosonography: Instruments & Techniques. Orlando, FL. (Johnson)

February 3-4, 2000: Walter Reed Army Medical Center: 1) Endoscopic Anatomy of the Esophagogastric Junction, 2) Diagnosis of Swallowing Disorders Caveats for Clinicians. Washington, DC. (Boyce)

March 8, 2000: Milwaukee GI Society: Complex Esophageal Strictures. Milwaukee, WI. (Boyce)

March 22-25, 2000: German Endoscopic Society, Postgraduate Course: Measuring the Length of Barrett Esophagus - Where is the Zero Line?. Hamburg, Germany. (Boyce)

Contributions To Medical Literature

Boyce HW. Hiatus Hernia and Peptic Diseases of the Esophagus, In: Gastrointestinal Endoscopy, Sivak MV, ed. WB Saunders, Philadelphia, Pennsylvania, 1999 2nd Edition, Volume 1, pp 580-597 and on CD-Rom, 1999.

Boyce HW. Special Varieties of Esophagitis, In: Gastrointestinal Endoscopy, Sivak MV, ed. WB Saunders, Philadelphia, Pennsylvania, 1999 2nd Edition, Volume 1, pp 598-614 and on CD Rom, 1999.

Boyce GA, Boyce HW. Esophagus: Anatomy and Structural Anomalies, In: Textbook of Gastroenterology, 3rd Edition, Yamada T, Alpers DH, Laine L, Owyang C, Powell DW, eds. Lippincott-Raven, Philadelphia, Pennsylvania, 1999.

Choudhry U, Boyce HW. Treatment of Esophageal Disorders Caused by Medications, Caustic Ingestion, Foreign Bodies and Trauma, In: Therapy of Digestive Disorders, Wolfe MM, ed. WB Saunders, Philadelphia, Pennsylvania, 2000, pp 37-53.

Boyce HW. Endoscopic definitions of esophagogastric junction regional anatomy, *Gastrointest Endosc*, 2000; 51:586-92.

THINGS TO REMEMBER

OFFICE HOURS:

8:00 a.m. 'til 4:30 p.m. Monday through Friday. Telephone hours: 8:00 a.m. 'til 6:00 p.m. Also, our emergency telephone number for after hours is (813) 974-2201.

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 physician or facility 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 Friday.

For those patients who are from out-of-town, a new toll-free number has been added for you to call with 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.

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 insurance companies. If you 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 you contacting our office to let us know, (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 doctors. Thank you for helping us keep the records straight.

GERD and Common Swallowing Disorders - An Update for Primary Care

Saturday, November 17, 2001

Hyatt Regency Westshore

Tampa, Florida

Sponsored by the University of South Florida College of Medicine and the Joy McCann Culverhouse Center for Swallowing Disorders

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A series of informative abstracts of recent developments in technology and observations on the common problem of gastroesophageal reflux disease or GERD have been distributed to physicians recently in Gastroenterology Newslink. These appear of sufficient interest that we have chosen to reproduce them for you:

The Big Picture: Esophageal disorders, abdominal pain, and rectal and anal hemorrhage were the most common reasons that patients visited gastroenterologists' offices last year, according to a report on physician practice patterns by Scott-Levin Associates. Gastroenterologists in the U.S. received more than 26 million visits from patients during a 12-month period ending in March, representing a 6% increase over the previous 12 months. The total number of retail prescriptions written by gastroenterologists increased by 4% to reach 35.2 million during the year ending April 2000, and associated retail sales for those prescriptions reached 2.7 billion, a 19% increase. According to the report, the top five therapeutic classes of drugs prescribed by gastroenterologists were acid suppressing drugs (25.9%), GI anti-inflammatory products (5.7%), GI stimulants (3.5%), pre-X-ray evacuants (3.4%), and antispasmodics (2.7%).

Say Cheese: The FDA has approved a swallowable capsule containing a miniature camera that takes two images per second as it passes through the small intestine. The device, called the Given Diagnostic Imaging System, contains a camera, lights, a transmitter, and a battery with an expected life of about eight hours. Once swallowed, the capsule transmits images of the small intestine to a data recorder worn on a belt around the patient's waist. The stored data are transferred to a computer for processing and analysis. A product of Given Imaging Ltd., the device is approved for use in conjunction with radiologic and other evaluations of the small bowel in patients with unexplained chronic GI blood loss or anemia. This exciting instrument is not suitable for examining the esophagus since it passes from mouth to stomach in less than 10 seconds.



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