Integrated Management of Dysphagia and Malnutrition

Thursday, September 29, 2011
15.00 - 16.45
Room: Hall 2A

Chairman: Prof. Maurits Vanderwoude, MD PhD
Professor of Geriatrics and Head of the Geriatrics Department at the University of Antwerp
Antwerp, Belgium

- Dysphagia: A prominent problem burdening patients and healthcare resources. (Rebecca Leonard, PhD SLP – Sacramento, CA, USA)

- Pathophysiology, relevance, and natural history of oropharyngeal dysphagia among elderly
  (Helena Bascoñiza Ambrós, PhD MD – Barcelona, Spain)

- Dysphagia and Malnutrition:
  From screening to treatment
  (Rosa Burgos Peláez, PhD – Barcelona, Spain)
Integrated Management of Dysphagia and Malnutrition

Date: Thursday, September 29, 2011
Room: Hall 2A
Time: 15.00 – 16.45

Chairman: Maurits Vandewoude, MD PhD (Antwerp, Belgium)

Oropharyngeal Dysphagia: A Growing Concern in Health Care
Rebecca Leonard, PhD SLP (Sacramento, CA, USA)

Pathophysiology, Relevance, and Natural History of Oropharyngeal Dysphagia Among Elderly
Helena Bascuñana Ambrós, PhD MD (Barcelona, Spain)

Dysphagia and Malnutrition: From Screening to Treatment
Rosa Burgos Peláez, PhD MD (Mataro, Spain)

Questions & Answers
Chairman Biography

Mauritis Vandewoude, MD PhD

Maurits Vandewoude MD, PhD, is professor of Geriatrics and head of the Geriatrics Department at the University of Antwerp. He is director of the Geriatric department of the Antwerp Hospital Network (ZNA: Ziekenhuisnetwerk Antwerpen). He is president of the Belgian Commission for homologation in Geriatrics. He is member of the Board of the Belgian Society for Gerontology and Geriatrics and member of the Academic Board of the European Union Geriatric Society (EUGMS). He had training in clinical nutrition and was a founding member of the nutrition team at the University Hospital in Antwerp. His major research interests today are the study and prevention of sarcopenia and frailty, the effects of nutritional interventions in (psycho)geriatric patients and the early detection of functional disability. He was co-author of the consensus report of the European Working Group on Sarcopenia in Older Persons. He will be president of the EUGMS Conference that will be held in 2012 in Brussels.
Key Messages

Integrated Management of Dysphagia and Malnutrition

Mauritis Vandewoude, MD PhD
Professor of Geriatrics and Head of the Geriatrics Department
University of Antwerp, Antwerp, Belgium

Dysphagia is the defective transport of food and is usually described as a sensation of “sticking” or obstruction of the passage of food through the mouth, pharynx, or esophagus. However, it is often used as an umbrella term to include other symptoms related to swallowing difficulty. It is, however, defined as difficulty swallowing, including the occurrence of unpleasant sensations during swallowing. Dysphagia is a frequently occurring consequence of several medical conditions such as stroke or in patients with prolonged intubation. It is associated with several comorbidities such as malnutrition, aspiration pneumonia and death.

This symposium will focus on the ‘Integrated Management of Dysphagia and Malnutrition’. The high threat of dysphagia will be discussed by experts in the field. After framing the problem for the patient as well as the health care system, attention is paid to the pathophysiologic mechanisms leading to the development of dysphagia and the available methods and instruments for screening, identifying and treating the condition.
Rebecca Leonard, Ph.D., CCC-SLP, ASHA-F, is a Professor in the Dept. Otolaryngology/Head and Neck Surgery at the University of California, Davis, Medical School/Center. She is also the Clinical Director of the Voice and Swallowing Center at UCD. Dr. Leonard's research interests include normal and disordered swallowing, changes in oral-pharyngeal swallow function across the life-span, and the utility of objective measures from fluoroscopic swallow studies in dysphagia assessment and treatment planning. She is a frequent presenter on topics related to swallowing and voice, and has published extensively in these areas. She is the author of several texts and is a Fellow of the American Speech-Language-Hearing Association. Her M.S. and Ph.D. degrees are from Purdue University in West Lafayette, Indiana.
Key Messages

Oropharyngeal Dysphagia: A Growing Concern in Health Care

Rebecca Leonard, PhD SLP (Sacramento, CA, USA)

The World Health Organization reports that there are 15 million stroke patients each year worldwide, and 51-73% are likely to have dysphagia. This example is one of the best estimates of the significant burden of neurogenic dysphagia in health care. Other such at-risk populations are hospitalized patients, individuals in nursing homes, and persons with progressive neurological conditions such as Parkinson’s Disease and Multiple Sclerosis. In addition, physiological changes with advancing age, independent of other variables, compromise swallow function.

Serious complications commonly occur in individuals with dysphagia including weight loss, malnutrition, aspiration, pneumonia, and death. Dysphagia negatively impacts patient quality of life and causes significant morbidity, mortality, and costs. In the United States for example, dysphagia across populations increases hospital days by an average of 1.64 days, at an annual cost of $547,307,964.
Speaker Biography

Helena Bascuñana Ambrós

Pere Clavé, MD PhD, is Associate Professor of Surgery at Universitat Autònoma de Barcelona, and a Surgeon in Gastrointestinal Physiology at the Hospital de Mataró, in Spain.

He is actively involved with numerous professional societies focused on the areas of digestive motility and dysphagia. The list of associations includes several societies in Spain, the American and European Motility Societies, and the Dysphagia Research Society. Furthermore, Prof. Clavé is the President-Elect of the European Study Group for Dysphagia and Globus (EGDG).

He has a passion for basic and clinical science, and education of clinicians, as reflected in his publications. His track record of peer-reviewed articles is a demonstration of his collaborative nature as well as his skill in translational medicine, developing basic research discoveries into evidence-based interventions that help to advance clinical practice in oropharyngeal dysphagia.
Key Messages

Pathophysiology, Relevance, and Natural History of Oropharyngeal Dysphagia Among Elderly

Helena Bascuñana Ambrós, PhD MD (Barcelona, Spain)

Oropharyngeal dysphagia is a major complaint among older people. Elderly patients with oropharyngeal dysphagia presented a severe impairment in efficacy and safety of swallow caused by weak tongue propulsion and prolonged and delayed swallow response. The severity of oropharyngeal dysphagia varies from moderate difficulty to complete inability to swallow. Dysphagia may cause two groups of clinically relevant complications in the elderly: a) a decrease in the efficacy of deglutition leading to malnutrition and dehydration, and contributing to frailty, b) a decrease in deglutition safety, leading to tracheobronchial aspiration which results in aspiration pneumonia that can lead to death. Clinical screening methods should be used to identify older people with oropharyngeal dysphagia, to identify those patients who are at risk of aspiration, and select patients who need a more comprehensive study. Videooflouroscopy (VFS) is the gold standard method to study the oral and pharyngeal mechanisms of dysphagia in the elderly. VFS characterizes the alterations of deglutition in terms of videofluoroscopic signs, allows accurate measurement of the oropharyngeal swallow response and helps to select and assess specific therapeutic strategies. Up to 45% elderly patients with dysphagia presented penetration into laryngeal vestibule, 30% aspiration, -half of them without cough (silent aspirations)-, and 45% oropharyngeal residue. Treatment with dietetic changes in bolus volume and viscosity, and rehabilitation procedures can improve deglutition and prevent nutritional and respiratory complications in older patients. Diagnosis and management of oropharyngeal dysphagia needs a multidisciplinary approach. Identification of functional oropharyngeal dysphagia as a geriatric syndrome will induce many changes in the provision of medical care in the near future.
Notes
Speaker Biography

Rosa Burgos Peláez, PhD MD

Dr Rosa Burgos has practiced as an Endocrinologist since 1990, and has specialized in Clinical Nutrition since 1997 in the University Hospital Vall d'Hebron, in Barcelona, Spain. Hospital Vall d'Hebron is a third-level, > 1,000 beds reference hospital in Catalonia, Spain. At present Dr. Burgos is the Chief of the Nutritional Support Unit.

The Nutritional Support Unit in the Hospital Vall d'Hebron is a multidisciplinary Unit including an endocrinologist, gastroenterologist, pediatrician, dietitians and nurses. Together, they provide nutritional support to both hospitalized- and out-patients.

Dr. Burgos' main topics of interest are nutritional support in neurological patients, home artificial nutrition and hospital malnutrition. She is the national coordinator of the European NutritionDay initiative in Spain, and she is also the leader of the Educational Program of the European Society for Clinical Nutrition and Metabolism (ESPEN) in the field of Nutritional Support in Neurological diseases.
Key Messages

Dysphagia and Malnutrition: From Screening to Treatment

Rosa Burgos Peláez, PhD MD (Barcelona, Spain)

Malnutrition and dysphagia are high prevalent conditions that increased both morbidity and mortality of elderly patients, and are implied in the decrease of quality of life and functional status. Dysphagia is one of the identifiable and treatable causes of malnutrition. Both cause a significant overall increase in health costs.

Malnutrition and dysphagia can be identified by several validated screening tools in adults. Screening tools for dysphagia and malnutrition are reviewed.

Most screening tools for detect malnutrition consider body mass index, changes in weight over time, decrease in food intake and the severity or the impact in nutritional status of the disease.

Scientific societies recommend using nutritional screenings in different settings.

- **ESPEN recommendations:**
  - Comunity → **MUST** (*Malnutrition Universal Screening Tool*)
  - Hospital → **NRS-2002** (*Nutrition Risk Screening*)
  - Frail elderly → **MNA** (*Mini Nutritional Assessment*)

- **ASPEN recommendations:**
  - **SGA** (*Subjective Global Assessment*)

Most screening tools for detect dysphagia consider the presence of cough and changes in the voice. The most important features of the screening methods are the sensibility and specificity, but also the easy to use.

Recently, a new screening tool for dysphagia has been described: the Eating Assessment Tool-10 (EAT-10). The EAT-10 is a self-administered test, analogical and direct-scored, easy to understand by the patients and fast. We have performed the validation of the Spanish version of the EAT-10. We describe our experience linking the EAT-10 screening tool with a clinical bedside assessment method: the volume-viscosity swallow test (V-VST).

Both, the dysphagia and nutritional assessment allows us to plan a nutritional intervention in elderly patients with dysphagia.

References:
Cook J. Gastroenterol Hepatol 2008; 5: 393-403.
EUGMS 2011 Scientific Abstract

Title

Performance-Based Preference for a Novel Xanthan Gum-Based Thickener Among Clinicians Treating Dysphagia Patients

Authors

K. Herentrey, A. Busch, K.M. Kaspar

Affiliation

Nestlé Health Science, Switzerland

Introduction: Diet modification is an evidence-based intervention recommended by healthcare professionals (HCPs) as part of dysphagia patient management. Commercial thickening agents are used to decrease the flow rate of liquids, and allow patients more time to initiate airway protection while swallowing. Yet, the various thickening agents commercially available have different performance characteristics with unique implications for product ease of use and acceptance by patients and caregivers. The objective of this study was to investigate the product performance of various commercial thickening agents as judged by HCPs who treat dysphagia patients.

Methods: Two separate studies were conducted among HCPs involved in the care of dysphagia patients. A novel xanthan gum-based thickener (Resource® ThickenUp Clear, Nestlé) [XANTHAN] was compared with a traditional starch-based thickener (Thick & Easy®, Fresenius Kabi) [STARCH], and a thickener incorporating a blend of starch and gums (Nutilis®, Nutricia) [BLEND]. Four different liquids (water and ice tea, each prepared at 2 different viscosity levels, syrup and custard) were assessed. All liquids were presented in an unbranded and randomized manner to HCPs.

Results: Among a multidisciplinary group of HCPs (n=130; 50 physicians, 50 nurses, and 30 speech-language therapists), 71%-81% reported preference for the XANTHAN-based thickened product vs. the BLEND. In a separate test (n=134; 53 speech-language therapists, 51 dietitians, and 30 nurses), 9 out of 10 HCPs reported preference for the XANTHAN compared to the STARCH-based thickener. The following performance characteristics contributed to product preference: visual appearance, taste, and consistency in mouth. Of the participating clinicians, 96% agreed that the XANTHAN thickener ‘will help make patients feel more normal as thickened products look more natural’, and 98% agreed that the XANTHAN thickener ‘will help improve patient compliance’.

Conclusions: HCPs who care for dysphagia patients judged a novel xanthan gum-based thickening agent superior to comparable products incorporating different thickening ingredients. Preference for the XANTHAN-based thickener was attributed to product performance characteristics linked to patient compliance and quality of life.
Title
Considerable Clinical And Economical Burden Of Oropharyngeal Dysphagia Among Stroke Patients.

Author
C. Takizawa

Affiliation
Nestle Health Science, Global Health Economics, Switzerland

Objective: Dysphagia commonly occurs following stroke and contributes to subsequent morbidity and mortality in stroke survivors with related substantial economical implications. Literature on the burden of this medical condition is scarce. This study aimed to identify the reported clinical and economical burden of dysphagia among stroke patients.

Methods: Epidemiological data were collected from recent publications in stroke and/or dysphagic patients and included prevalence of dysphagia and aspiration pneumonia, as its main complication. Economical data varied from one publication to another, but mainly included hospital length of stay; and treatment costs of aspiration pneumonia.

Results: The data demonstrate stroke mostly occurs in people older than 65 years age (>75%). Prevalence and epidemiological figures varied widely from one publication to another. Indeed, between 19% and 81% of stroke patients are dysphagic, depending on the method and time after stroke episode in which dysphagia is identified. Thus stroke reportedly leads to between 5.8 and 44 million stroke patients to suffer dysphagia worldwide, of whom between 4.6 and 19.6 million of these patients reside in North America and Europe. Studies have identified that between 40% to 50% of dysphagic stroke patients aspirate. In addition, pneumonia occurs in up to 51% of dysphagic stroke patients whether they aspirate or not. Of course, dysphagic stroke patients who aspirate are at higher risk of pneumonia: up to 11 fold more than non aspirators. Worldwide between 230’000 to almost 23 million dysphagic stroke patients develop pneumonia, of whom between 185’830 to more than 10 million are from Europe or North America. Furthermore, hospital length of stay ranges from 5.07 to 10.55 days for stroke patients with dysphagia versus between 3.26 to 4.74 days without dysphagia. The average hospital cost for pneumonia is $919 per day, totaling up to $96.5 billion in Europe and North America regions alone.

Conclusions: The overall dysphagia burden is considerable worldwide, especially in Europe and North America. This burden is probably underestimated since only direct medical costs were included. However, this burden will most probably increase given the growing elderly population in developed countries, which is at higher risk of having stroke.
Science for Better Nutrition

www.nestlenutrition-institute.org