Nestlé Nutrition Institute
Satellite Symposium

Nutrition as a part of treatment plan in surgical oncology

Held in conjunction with the ESPEN 33rd Annual Congress
Gothenburg, September 3-6th, 2011

Saturday, 3rd September 2011
12.00 - 13.30
Room H1 - H2
SATELLITE SYMPOSIUM PROGRAMME

Nutrition as a part of treatment plan in surgical oncology
Saturday, 3rd September 2011 - 12.00 - 13.30 - Room H1 - H2
Chairman: Prof. Pierre Déchelotte, MD, PhD – Rouen, France

WELCOME & INTRODUCTION

FACTORS ASSOCIATED WITH PEG DEPENDENCE IN HEAD & NECK CANCER
A/Prof. Scott Magnuson, MD
Birmingham, USA

NUTRITIONAL EVALUATION AND MORBIDITY IN COLORECTAL CANCER SURGERY
A/Prof. Zeno Stanga, MD
Bern, Switzerland

NUTRITION AS PART OF TREATMENT PLAN IN GI CANCER SURGERY
Prof. Christophe Mariette, MD, PhD
Lille, France

THE ECONOMIC BURDEN OF DIARRHEA IN GI CANCER PATIENTS
Prof. Pierre Déchelotte, MD, PhD
Rouen, France

QUESTION & ANSWER SESSION
Factors Associated with PEG Dependence in Head and Neck Cancer

ABSTRACT

Advancements in treatment for head and neck cancer over the past decade have resulted in maintenance of organ anatomy, increased tumor control, and increased survival; but not without severe oral complications. In fact, dysphagia is one of the most serious and persistent complications associated with all treatments for head and neck cancer patients, particularly radiation therapy. Percutaneous endoscopic gastrostomy (PEG) tubes are routinely placed in head and neck cancer patients, both prior to and following onset of treatment, in order to provide temporary nutritional support until adequate oral intake is possible following completion of treatment. Unfortunately, the resumption of oral intake does not occur in all patients, and dependence on feeding tubes has been defined as one of the most debilitating late toxicities associated with treatment for head and neck cancers.

Research, including our own work, has just begun to examine patient, tumor, and treatment factors associated with long-term dependence on PEG tubes in head and neck cancer survivors. Patient characteristics associated with long-term dependence on PEG tubes include older age, preoperative weight loss, and heavy alcohol use. Tumor characteristics include tumor site (larynx/hypopharynx primary site and pharyngeal tumors) and advanced stage disease. Treatment-related factors associated with long-term dependence on PEG tubes include neck dissection after chemoradiation therapy and the addition of chemotherapy to definitive radiation therapy. No study has investigated the important role that social support may play in long-term dependence on PEG tubes in head and neck cancer survivors.

The aims of this presentation are to describe patterns and correlates of long-term dependence on PEG-tube feeding following treatment for head and neck cancer. Identification of these factors is critical in order to develop interventions that may prevent or shorten long-term dependence on PEG-tubes following treatment for head and neck cancer.
A/Prof. Zeno Stanga, MD  
Bern, Switzerland

PROFESSIONAL EXPERIENCE

Present  
Senior Consultant in Clinical Nutrition  
University Hospital, Bern, Switzerland

Present  
Senior Consultant in General Internal Medicine  
University Hospital, Bern, Switzerland

2000 – 2002  
Research Fellow (Prof. M DeLegge)  
Clinical Research in Clinical Nutrition  
MUSC, University Hospital, South Carolina, USA

2003  
Research Fellow (Prof. M DeLegge)  
Clinical Research in Clinical Nutrition  
MUSC, University Hospital, South Carolina, USA

EDUCATION / CERTIFICATES

1989  
MD, University of Bern, Switzerland

1997  
Specialisation in General Medicine Certificate, Swiss Medical Association, Bern, Switzerland

2009  
Postdoctoral Lecture Qualification, University of Bern, Switzerland

1996  
Specialisation in Internal Medicine Certificate, Swiss Medical Association, Bern, Switzerland

2011  
(Specialisation in General Medicine Certificate, Swiss Medical Association, Bern, Switzerland (in progress)

MEMBERSHIPS

• Nutritional screening
• Malnutrition in the hospital setting
• Nutrition in the critical care
• Nutrition in geriatric and cancer patients
• Re-feeding syndrome
• Short bowel syndrome

SELECTED PUBLICATIONS


ABSTRACT

Nutritional evaluation and morbidity in colorectal cancer surgery

Key Points

• To be aware of the fact that nutritional risk is a major factor for determining outcome in patients undergoing colorectal cancer surgery
• To be familiar with nutritional screening in the preoperative phase
• To know how to feed the patient at nutritional risk preoperatively

In the last decades progress had led to reduced morbidity and mortality after general surgery. Even with such efforts complication rates are still around 20-40% after abdominal surgery. Thus minimize the risk of potential complications in the preoperative phase are mandatory. There is substantial evidence that a deteriorated preoperative nutritional state adversely affects outcome in terms of increased complications and reduced quality of life. These factors have cost implications for the health care system. An impaired nutritional status before major surgery is related to increased incidence of nosocomial infections, longer ICU-length of stay, more frequent readmission to hospital and higher mortality. Malnutrition may also influence multiple organ dysfunctions, functional recovery, wound healing and the incidence of postoperative surgical wound infections. The stress of surgery or trauma additionally increases protein and energy requirements by creating a hyper-metabolic, catabolic state. As a result, identifying and treating malnutrition in colorectal cancer patients prior to the operation is critical to achieve favorable patient outcomes. Careful preoperative nutritional screening should include an evaluation of the nutritional status based on four variables (recent weight loss, BMI, general condition and amount of food intake in the preceding week) and a determination of the level of stress of the underlying disease. For this purpose a simple, reliable, easily applied and reproducible scoring system such as the Nutritional Risk Screening 2002 (NRS 2002), developed by a working group of the European Society for Clinical Nutrition and Metabolism (ESPEN), should be used.

Recent studies have evaluated the NRS 2002 in the clinical setting assessing the prevalence of nutritional risk preoperatively and predicting complications after colorectal cancer surgery. As malnutrition affects the treatment and outcomes of patients with colorectal cancer peri-operatively, timely intervention to assess and improve nutritional status has enormous importance. Therefore, our objective should be to provide the best nutritional support before operation to those patients according to the evidence-based recommendations of ESPEN.

References


Nutrition as part of treatment plan in GI Cancer Surgery

ABSTRACT

Malnutrition is frequently observed in GI cancer surgical patients, from 20 to 50% of cases. Malnutrition is an independent predictor of postoperative morbidity and mortality, leading to increased length of hospital stay and costs. All efforts should consequently be directed to include nutritional support as a strong therapeutic weapon in oncological treatments.

Based on worldwide guidelines, perioperative nutritional support in GI cancer surgery should be provided as follows:

- During the perioperative period, artificial nutrition is not required in well-nourished patients or weight loss < 10% and in patients who can have oral diet of at least 60% of their needs within the week following surgery (Grade A).
- Preoperative nutrition is recommended in severe malnourished patients with weight loss > 20% that will benefit from major surgery (Grade A). The same attitude seems to be beneficial for patients with moderate malnutrition (weight loss between 10 and 19%) (Grade B).
- Postoperative nutrition is recommended:
  - in all patients who benefited from preoperative nutrition (Grade A),
  - in all malnourished patients who did not benefit from preoperative nutrition (Grade A),
  - in patients that have no possibility for oral diet in the postoperative course or due to surgical complications (Grade A),
  - or in case of an oral diet of less than 60% of their need within the week following surgery (Grade A).
  - in other patients, no unequivocal recommendation could be drawn (Grade B).
- Oncological surgery is associated with immune suppression leading to an increase risk of postoperative morbidity and infectious morbidity. Stimulating immune functions could allow a decrease of such complications. In both well-nourished and malnourished patients, enteral immunonutrition (Oral Impact®, Enteral Impact® Nestlé Clinical Nutrition) - is more efficient than a standard isocaloric and isoenergetic nutrition,
  - in other patients, no unequivocal recommendation could be drawn (Grade B).
- In the postoperative period, immunonutrition needs to be continued in all patients that will benefit for oncological digestive surgery (Grade A). In the postoperative period, immunonutrition needs to be continued in all patients that will benefit for oncological digestive surgery (Grade A). The same attitude seems to be beneficial for patients with a moderate malnutrition (weight loss between 10 and 19%). The same attitude seems to be beneficial for patients with moderate malnutrition (weight loss between 10 and 19%).
- Preoperative nutrition is recommended in severe malnourished patients with weight loss ≥ 20% that will benefit from oncological digestive surgery (Grade A). In the postoperative period, immunonutrition needs to be continued in all patients who were malnourished in the preoperative period:
  - (a) during 7 days in absence of postoperative complications,
  - or until patients can have oral diet of at least 60% of their needs (Grade A).
- Surgeon is a key actor to include nutritional support as a strong therapeutic weapon in oncological therapeutic strategy for GI cancer patients.

SELECTED PUBLICATIONS

The economic burden of diarrhea in GI cancer patients

ABSTRACT

With the constant progress of adjuvant and palliative therapies of esophageal cancer (chemotherapy, radiotherapy, molecular targeted therapies), the mortality rate has progressively declined while simultaneously increasing the number of patients who are coping with chronic disease and the side-effects of active treatments. Among these side-effects, gastrointestinal discomfort and especially diarrhea appear most frequently. These adverse side-effects compromise both the patient’s quality of life and their ability to further benefit from oncology treatments. The mechanisms of cancer-induced diarrhea are numerous and may relate to direct effects of the drugs themselves on intestinal secretion or motility or to its toxic effects with secondary mucositis, all of which impair food intake and compromise the nutritional status of the patient. Ambulatory treatments may prove insufficient in very severe cases of diarrhea. Cancer-related diarrhea is a common cause of hospital readmission, with use of IV rehydration and costly therapy such as octreotide.

The cost-benefit approach of cancer treatment is often focused on the impact of active therapy, with the increasing costs of modern therapies being weighed with rate of survival, or length of disease-free living; more recently, health-economics began to address the issue of quality of life and supportive care. Data on the economic burden of mucositis and severe chemotherapy-induced diarrhea have thus appeared1-4. The cost of severe mucositis has been estimated to rise to the level of $5500 per episode5. Severe grade III and IV diarrhea occurs in up to 50% of patients with colorectal cancer undergoing chemotherapy as adjunctive or palliative treatment5. In a retrospective study6, severe diarrhea caused a reduction, change or discontinuation of chemotherapy in 9.5%, 15.9% and 34.2% respectively, of patients. The median length of stay in the hospital was 8 days, with a median of 3 days of IV rehydration. The estimated costs were $8230 per patient. Overall, all grades of diarrhea in patients with gastrointestinal cancer receiving chemotherapy ranged from $34 to $526 per month, depending on the drug used6.

In conclusion, GI cancer related diarrhea is frequent and often severe, generating high physical impairment and related costs. Innovative nutritional and/or pharmacological strategies are needed to reduce the incidence and severity of this burden and their clinical evaluation should include a cost-efficiency analysis.

References
