



Clinical Nutrition News

Oncology at ESPEN 2010

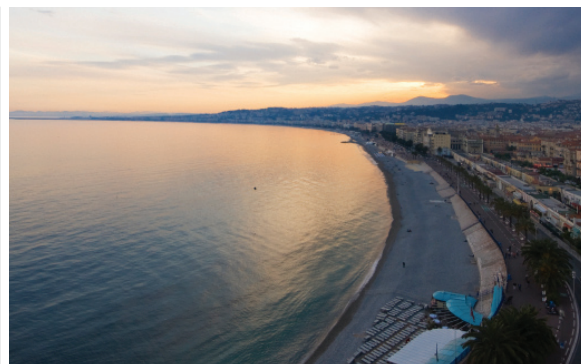
Clinical Nutrition News: Oncology at ESPEN 2010 is a brief update for health care professionals with a particular interest in the role of nutrition in the care of patients with cancer. This issue reports from the 32nd Congress of the European Society for Clinical Nutrition and Metabolism (ESPEN), which took place September 5th – 8th in Nice, France.

Cancer care was a major topic at ESPEN 2010. In the opening-ceremony lecture on cancer nutrition, Prof Xavier Hébuterne (France) noted that the prevalence of poor nutritional status is high among cancer patients; 1 in 4 patients with lung carcinoma present with more than 10% weight loss in 6 months, and half of these patients have evidence of sarcopenia.¹ Cancer and its treatments take a high toll on appetite, metabolism, and lean body mass in cancer patients. Nutrition counseling, immunonutrition, and high-energy/high-protein supplements can be used to improve outcomes and quality of life.

Hébuterne highlighted the role of ω -3 eicosapentaenoic acid (EPA) as a dietary strategy to lessen inflammation and support immune surveillance. Specifically, he noted a new preclinical study showing that an EPA-containing diet delayed the onset of cancer cachexia;² he also spotlighted a study in which dietary EPA reduced the size and number of rectal polyps in people with a family history of polyposis.³

Profiling nutrition in cancer

In a symposium entitled *Profiling Nutrition in Cancer*, speakers Drs Yves Dupertuis (Switzerland), Philippe Bougnoux (France), and Vickie Baracos (Canada) discussed how specific nutrients can affect tumor growth, and how nutritional status can affect response to cancer treatments. Poor nutritional status, due to cancer cachexia with wasting, leads to increased risk for morbidity and mortality.^{4, 5}



32nd Congress of the European Society for Clinical Nutrition and Metabolism (ESPEN) in Nice, France, 5-8 Sept, 2010

Remarkable new findings come from use of computed tomography (CT), which permits separate quantification of muscle and adipose tissue mass. Based on such analyses, Dr Baracos noted that only 7.5% of lung cancer patients were underweight according to standard BMI measures, while nearly half of the patients were overweight or obese.¹ Nevertheless, severe muscle depletion was evident at an overall prevalence of 46.8%, including patients of all BMI classes. The implications of this observation are immense when considering nutritional support in cancer patients. Given the pervasive presence of muscle depletion in cancer patients, Baracos recognized a need to focus on prescribing nutritional therapy that promotes gain of skeletal muscle tissue. She qualified this recommendation by stating that energy intakes will differ for underweight patients with muscle depletion compared to those of high BMI patients who need to increase muscle but stabilize or even lose fat.

Food for Thought

Severe muscle depletion was present in nearly half of all cancer patients, an observation that calls for greater focus on nutrition to build muscle.

Nutritional support in cancer

At a Lifelong Learning program of ESPEN, Dr Paula Ravasco (Portugal), Prof Kenneth Fearon (UK), Dr Alessandro Laviano (Italy) and Dr Jann Arends (Germany) reviewed the causes, consequences, and treatment of poor nutritional status in patients with cancer.

Ravasco began with the most recent definition of cancer cachexia: “a multifactorial syndrome with loss of skeletal muscle mass that cannot be reversed by conventional nutrition support.” Cancer cachexia results from negative protein and energy balance driven by reduced food intake and by abnormal metabolism. The body sacrifices large portions of skeletal muscle mass to spare organs with critical functions—a tactic that ultimately leads to loss of physical function.⁶ Dr Laviano emphasized the contributing role of anorexia, i.e., decreased appetite due to a combination of factors released by the tumor and the host’s response to the tumor.⁷ Prof Fearon underscored benefits of nutrition screening, treatment with oral nutrition supplements, and nutrition counseling to address deficits in protein and energy intake. Dr Arends reviewed appetite-inducing substances, such as ghrelin, that offer promise as future treatments.



Dr Alessandro Laviano, speaker, and Prof Kenneth Fearon, moderator, at a session on *Nutritional Support in Cancer*

Dietitians and nurses play key roles in cancer nutrition care

For effective management, cancer nutrition requires a full team of individuals; dietitians and nurses play extremely important roles. Two sessions at ESPEN 2010 highlighted the marked differences these caregivers can make. A study from the Netherlands showed that early and intensive individualized counseling by a dietitian decreased weight loss in patients undergoing radiotherapy for head and neck cancer.⁸ Further, a Swedish study revealed that cancer patients attending a supportive nursing care clinic (nutrition care, symptom control, and emotional support) had quality of life scores that increased faster and to a greater extent than did patients who got only regular care during the year after cancer treatment.⁹

Highlighted Oral and Poster Presentation from ESPEN 2010

Enhanced recovery after cancer surgery in patients fed EPA-enriched nutritional support¹⁰

Periampullary cancer (PC) develops in the site where liver and pancreatic ducts join and enter the small intestine. A clinical study from Turkey evaluated post-surgical nutrition for patients who had PC tumors removed surgically.

Following surgery, PC patients were randomized to fast-track feeding with an EPA-enriched diet (ProSure, Abbott Nutrition) or to conventional enteral feeding. Results showed that patients on fast-track feeding startup with an EPA-enriched diet that continued for 2 months: (1) resumed enteral nutrition 4 days earlier (post-surgery day 3 vs day 7), (2) had bowel function 2 days sooner (day 4 vs day 6), (3) had a 6-day shorter length of hospital stay (7 vs 13 days), and (4) lost much less weight (-7% vs -14%) in the 2 months post-surgery when compared to patients receiving conventional feeding with a formula lacking EPA.

References

1. Baracos VE, Reiman T, Mourtzakis M, Gioulbasanis I, Antoun S. Body composition in patients with non-small cell lung cancer: a contemporary view of cancer cachexia with the use of computed tomography image analysis. *Am J Clin Nutr.* 2010;91(4):1133S-1137S.
2. Dumas JF, Goupille C, Pinault M, et al. n-3 PUFA-enriched diet delays the occurrence of cancer cachexia in rat with peritoneal carcinosis. *Nutr Cancer.* 2010;62(3):343-350.
3. West NJ, Clark SK, Phillips RK, et al. Eicosapentaenoic acid reduces rectal polyp number and size in familial adenomatous polyposis. *Gut.* 2010;59(7):918-925.
4. Evans WJ, Morley JE, Argiles J, et al. Cachexia: a new definition. *Clin Nutr.* 2008;27(6):793-799.
5. Fearon KC. Cancer cachexia: developing multimodal therapy for a multidimensional problem. *Eur J Cancer.* 2008;44(8):1124-1132.
6. Ravasco P, Monteiro-Grillo I, Vidal PM, Camilo ME. Cancer: disease and nutrition are key determinants of patients' quality of life. *Support Care Cancer.* 2004;12(4):246-252.
7. Muscaritoli M, Anker SD, Argiles J, et al. Consensus definition of sarcopenia, cachexia and pre-cachexia: joint document elaborated by Special Interest Groups (SIG) "cachexia-anorexia in chronic wasting diseases" and "nutrition in geriatrics". *Clin Nutr.* 2010;29(2):154-159.
8. van den Berg M, Rasmussen-Conrad E, Wanten G, Kaanders J, Merks M. Individual dietary counselling indispensable in patients with head and neck cancer undergoing radiotherapy. *Clin Nutr.* 2010;5(2S):1.
9. Larsson M, Bjuresater K. A supportive nursing care clinic--effects on nutritional status and health-related quality of life for patients with head and neck cancer. *Clin Nutr.* 2010;5(2S):10.
10. Coker A, Gurcu B, Uguz A, Hopanci-Bikacli D, Tekesin O, Goker E. EPA enriched nutritional support and fast track surgery for elective periampullary carcinoma. *Clin Nutr.* 2010;5(2S):20.