

## **Experts call for action on pre-operative immunonutrition**

Glasgow, 3rd September 2002 – Today over 300 delegates at the European Society of Parenteral and Enteral Nutrition (ESPEN) attended the session that looked at the support for immunonutrition in pre- and post-surgery to improve patient outcomes, such as reduced risk of infection, faster wound healing and earlier discharge from hospital.

This session follows on from a recent US consensus panel that provided clinicians with guidance on the use of immune-enhancing therapy in clinical practice.<sup>1</sup> It recommends that, wherever possible, feeding should begin 5 days pre-operatively with formulas such as Oral Impact<sup>®</sup>, a 1 kcal/ml feed supplemented with L-arginine, omega-3 fatty acids and nucleotides.

US consensus panel member Professor Robert Martindale from the Department of Surgery at the Medical College of Georgia, US, told the delegates in Glasgow that the benefits of immunonutrition were well founded. “Patients undergoing surgery have an increased risk of post operative complications. Most major prospective randomized clinical trials on supplemented feeding have demonstrated shorter time in intensive care units in those patients who received adequate nutritional supplements with key nutrients.”

Mr Alastair Windsor, consultant colorectal surgeon from St Marks Hospital, London, said “Surgery and trauma are associated with a period of relative immune suppression, which may expose patients to subsequent septic risk.”

Despite the varied nature of the studies conducted and the difficulties in generalizing between them, Mr Windsor said there was now “compelling evidence that providing enteral feeds with immune enhancing supplements could beneficially alter this trauma induced immune suppression, making it a Grade A recommendation in elective surgery.”

In one recent randomized, double-blind, placebo-controlled study, patients scheduled for elective coronary artery bypass surgery given Impact<sup>®</sup> for 5 days pre-operatively showed improved pre-operative host defense (delayed-type hypersensitivity response to recall antigens, expression of HLA-DR epitopes on monocytes, and concentration of interleukin 6 in plasma) and a reduced number of post-operative infections, compared with those who took a control supplement.<sup>2</sup> Their overall length of stay was also reduced.

Dr Nuria Farreras from Hospital Creu Roja de l'Hospitalet de Llobregat, Barcelona, presented results of a prospective study conducted in patients undergoing gastrectomy for gastric cancer that showed a positive effect on surgical wound healing, in patients who received early immunonutrition.

“Compared with patients given standard supplements, those who received enteral nutrition with arginine, RNA and omega-3 fatty acids (Impact<sup>®</sup>) showed a statistically significant reduction in global morbidity, infectious complications and the consequences of a failure in the healing process – evisceration, suture failure and wound dehiscence,” Dr Farreras told the meeting. “This translated into a shorter length of hospital stay.”

While providing nutritional support to critically ill patients can improve clinical outcomes in trials,<sup>3</sup> the benefit derived appears to be dose-related, making it essential to consider the question of compliance and tolerance to the feed.<sup>4</sup>

Alison White SRD, acting manager in the Nutrition & Dietetic Department at St Thomas' Hospital, London, explained how they have a dedicated nutrition team that assesses patients to spot those at risk. Where a patient is malnourished, the team will start oral supplements following a protocol for monitoring each patient's daily intake. Immunonutrition should be considered earlier in patient care and a good protocol will help achieve the volumes required.

She noted that cardiac patients given Impact<sup>®</sup> showed a significant increase in pre-operative serum arginine concentration, indicating that patients were able to comply with their supplemental diet.

An ESPEN working group is currently reviewing the evidence and drawing up European guidelines. Until those guidelines are available, Professor Martindale urged European clinicians to act on the available evidence and embrace immune-enhancing enteral therapy in their everyday practice.

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