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29th International Symposium on Intensive Care and Emergency Medicine (ISICEM)

ISICEM 2009 welcomed more than 5000 participants from over 78 countries around the world to a buffet of controversial topics and debate. Here is just a taste of some of the topics covered at this years groundbreaking meeting:

Tight Glucose Control: Yes or No?

The debate about tight glucose control continues. Hyperglycaemia is associated with increased mortality but does achieving normoglycemia influence outcomes? In the opening session of this ISICEM, Dr. Finfer presented results from the much-awaited NICE-SUGAR study, showing an increased 90-day mortality in patients managed according to a tight glucose control protocol. Later, he further discussed the results of this trial and speculated on some of the reasons for the differences among the different studies, and how to incorporate these results into the current body of evidence. Dr. Van den Berghe presented findings from a recent single-centre randomised controlled study of tight glucose control in the paediatric population which included 700 children and infants. There were considerably more episodes of hypoglycaemia in the tight control group but the primary endpoint of ICU length of stay was reduced, as were secondary endpoints of organ dysfunction and mortality. Drs. Jean-Charles Preiser and Duncan Young presented data on the harmful effects of glucose variability and Dr. Taylor Thompson highlighted the important place computerised algorithms could have in the protocolised management of blood glucose levels.

Massive Blood Loss: Does rFVIIa Help?

Trauma is frequently associated with massive bleeding and one third of trauma deaths are due to refractory haemorrhage. Dr. Bertil Bouillon presented the results of a recent prospective, randomised, double-blinded, multi-centre, placebo-controlled trial of rFVIIa (the CONTROL study) in patients with active haemorrhage due to trauma, who had already received 4-8 units of RBCs. The trial was stopped for likely futility at interim analysis after inclusion of 573 patients and 30- and 90-day mortality and morbidity rates were indeed similar in treatment and placebo groups. However, rFVIIa-treated patients did have significantly lower transfusion requirements than placebo-treated patients both after blunt trauma and penetrating trauma. The placebo mortality rate was lower than expected (11% for blunt trauma and 13% for penetrating trauma) and Dr. Bouillon suggested that the lack of a beneficial effect on survival or multiple organ failure outcomes may have been related to this fact and that further studies are needed to better determine which patients could best benefit from the blood-sparing properties of this agent.

Coagulation and Inflammation in Sepsis: Proposed Therapies

Realisation of the link between coagulation and inflammation led to the development of activated protein C, a drug that has been shown to reduce mortality rates in patients with severe sepsis and septic shock and is licensed for use in such patients. But activated protein C is expensive and the original study design and results have been criticised. After several talks discussing the links between coagulation and inflammation, Dr. Laurent Mosnier presented some insights into the possible mode of action of activated protein C, other than its known anti-coagulant properties. Other speakers then focussed on the ongoing debate regarding the use of activated protein C and presented the rationale and design of two ongoing trials. Drs. Steven Opal, Pierre-François Laterre and Richard Wunderink then presented the methodology and somewhat disappointing results from a study of tissue factor pathway inhibitor in 2138 patients with severe community-acquired pneumonia, showing that it had no effect on outcomes in these patients. Finally, the present status of antithrombin in patients with sepsis was discussed.

IV fluids: What's your Favourite?

No one would disagree that intravenous fluids are an essential part of resuscitation in the shocked ICU patient, whatever the cause. However, there is considerable disagreement about which fluid and how much fluid to use. Dr. Peter Kruger opened with a concise discussion of the basics of fluid distribution and particularly how these may differ in critically ill patients compared to the normal population. Dr. Lewis Kaplan then highlighted the potentially detrimental effects of saline resuscitation, including the risks associated with hyperchloremic acidosis. Different speakers then presented the potential benefits of and indications for hypertonic solutions, albumin, and gelatins. Dr. Martin Westphal addressed the idea that hydroxyethyl starch solutions are not nephrotoxic, while Dr. Gernot Marx argued that they could damage renal function. More modern hydroxyethyl starch solutions may have a better profile.

Be sure to join us for the 30th Anniversary of the International Symposium on Intensive Care and Emergency Medicine from March 9 to 12, 2010. This meeting will move back to the centre of Brussels, (Square – Brussels Meeting Centre) and promises another outstanding scientific programme in addition to many other anniversary "celebratory" surprises!

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