Hyperglycemia in the PICU: Tread with Caution

The article “Treating Hyperglycemia in the Critically Ill Child Is there Enough Evidence?”[1] was indeed an eye opener. In our regular care of the critically ill pediatric patient, we commonly encounter hyperglycemia which is, many a times, self-limiting. This is especially true of the immediate post-operative period following neurosurgery, gut surgery or cardiac surgery. While we do not have precise data, our observations seem to suggest that post-operative hyperglycemia is transient, self-limiting and not necessarily indicative of a poor outcome. The author has reviewed studies of adults with critical illnesses, severe sepsis, myocardial infarction, stroke and trauma as well as children with critical illnesses, bronchiolitis, meningococcal sepsis and septic shock. The entire review contains only a single reference regarding children undergoing heart surgery. Patients undergoing elective and even emergency surgery may have much less multiorgan dysfunction, unlike the critically ill child. While the author emphasizes that the risk of hypoglycemia is minimal, though this may be true in PICU’s with tight monitoring of blood glucose, there is a distinct risk of life threatening hypoglycemia in smaller and peripheral set-ups with the use of insulin in the face of a spontaneously and rapidly correcting blood glucose in certain patients. Trying to achieve rigorous normoglycemia in this post-operative group of transient hyperglycemia would seem unjustified. While the epilogue does seem to give a more balanced approach, the tone of the actual article as well as the key messages may send out a wrong message.

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