

Commentary on “Perioperative hypothermia: turning up the heat on the conversation”

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Received: 16 January 2016; Accepted: 22 January 2016; Published: 16 March 2016.

doi: 10.21037/tgh.2016.03.14

View this article at: <http://dx.doi.org/10.21037/tgh.2016.03.14>

We appreciate the thoughtful commentary by Dr. Mehta (1) reviewing our publication “Association of perioperative hypothermia during colectomy with surgical site infections (SSI)” (2). His commentary brings up some excellent discussion topics on the subject of hypothermia in the operating room.

First, we certainly agree that hypothermia has many more effects than its potential impact on SSI, and prolonged and extreme hypothermia (34.7 °C in the Kurz study) (3) can lead to other perioperative morbidities. Therefore, we do not suggest that intraoperative warming should be discounted. However, when looking to reduce the rate of SSI, perhaps our attention needs to be directed toward other factors. In our study we showed that 36.0 °C may not be an absolute number to achieve for prevention of SSI.

We actively warm all patients who present for colon surgery, and the majority met the Agency for Healthcare Research and Quality (AHRQ) metric of normothermic (≥ 36.0 °C) on their final operative temperature. This last temperature does not fully capture the temperature of the patient throughout the case, and indeed a significant number of patients had intraoperative temperatures less than 36.0 °C during the case. We used the temperature data (obtained at 1 minute intervals) to examine if these hypothermic events, not captured by the current AHRQ metric, increased the risk of infection. We did not find an association between these “dips” and SSI. If we would have structured the data differently, and examined standard deviations (or other levels of severity) we might have had a different result.

We agree with the current practices of active warming of all patients undergoing a colon resection, and we are not trying to suggest the discontinuation of this practice. Our conclusion is that with current surgical practices, including warming measures, perioperative temperature did not demonstrate an association with SSI. Maintaining an absolute temperature at or above 36.0 °C is not the magic bullet to solve infections after colon surgery, but we agree with Dr. Mehta that current active warming measures should continue to be part of standard practice, as significant hypothermia has been shown to increase post-surgical complications.

Acknowledgements

None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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doi: 10.21037/tgh.2016.03.14

Cite this article as: Baucom RB, Poulouse BK, Geiger TM. Commentary on “Perioperative hypothermia: turning up the heat on the conversation”. *Transl Gastroenterol Hepatol* 2016;1:17.