Level of thoracic epidural blockade decides the postoperative outcome

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DEAR EDITOR,

Although the prognosis of a cancer patient may be closely tied to the location and extent of distant metastatic disease, this study by Chang et al[1] on the epidural analgesic effects on postoperative outcomes provided some important predictive value of clinical relevance. However, this retrospective and observational study has two inherent limitations. First, according to the study design, the clinical care was not fully standardized across patients, in addition to the selection bias and effects of unmeasured confounding variables. For example, opioids can affect immune system,[2] and therefore the exact kinds and dose of opioids used and their blood concentrations could affect the treatment outcome. But in this study, postoperative consumption of opioids and the perioperative opioids requirements were not recorded. Second, since it is more difficult to provide proper analgesia for patient undergoing upper abdominal surgery, the effectiveness and the level of sensory blockade of epidural analgesia and intravenous patient-controlled analgesia should have been, but yet not, mentioned. Hence, it is unclear how the stress response was altered during and after surgery.

Residual circulating cancer cells can be eliminated by the host immune system, which could be weakened after surgical stress. The neuroendocrine system, which is altered by surgical stress, may also influence the proliferation and migration of cancer cells.[3] To block the surgery-induced neuroendocrine changes and stress responses, intraoperative epidural blockade at the T1 level is often needed. On the contrary, the less aggressive intraoperative epidural blockade may provide optimal analgesia without affecting the neuroendocrine system.[4] To minimize the pain-induced stress response associated with surgery, proper analgesia is necessary. Hepatic innervations is derived from spinal level of T7 to T10-12.[5,6] In this study, the epidural catheter was inserted at the low thoracic spinal level, but no record was available regarding at which level the blockade had actually took place. Hence, information is missing on the condition of the hepatic sensory blockade. To reveal potential benefits of regional anesthesia on tumor recurrence, further studies are needed to answer the following important question, ie, under which circumstances patients can be benefited from regional anesthesia?[4]

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