Effectiveness of scheduled intravenous acetaminophen in the postoperative pain management of video-assisted thoracic surgery

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ABSTRACT

Purpose: The scheduled administration of intravenous acetaminophen (scheduled-IV-AcA) is one of the more effective multimodal analgesic approaches for postoperative pain in abdominal/orthopedic surgeries. However, there is little evidence concerning scheduled-IV-AcA after general thoracic surgery, especially when limited to video-assisted thoracoscopic surgery (VATS). We investigated the efficacy of scheduled-IV-AcA administration in patients after undergoing VATS.

Methods: Ninety-nine patients who underwent VATS lobectomy or segmentectomy via an 8-cm access window and 1 camera port were retrospectively reviewed by categorizing them into groups either with scheduled-IV-AcA (Group AcA: n = 29) or without it (Group non-AcA: n = 70). Group AcA received 1 g of IV-AcA every 6 h from the end of the operation until the end of POD2. Postoperative pain was measured using a numeric rating scale (NRS) three times per day until discharge.

Results: NRS scores were significantly lower in Group AcA with motion (on POD1 to the first point of POD2) than in Group non-AcA. Group non-AcA was also more likely to use additional analgesics than Group AcA (39% vs. 17%, p=0.058).

Conclusions: Scheduled-IV-AcA administration is a safe and effective multimodal analgesic approach in patients undergoing VATS pulmonary resection via an 8-cm access window.

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Keywords: intravenous acetaminophen, multimodal analgesia, postoperative pain