



ASO AUTHOR REFLECTIONS

ASO Author Reflections: Can Anesthesia Techniques Affect Neutrophil Extracellular Trapping Expression in Patients during Colorectal Cancer Surgery?

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PAST

Colorectal cancer (CRC) is one of the most common malignancies in the world. Neutrophil extracellular trapping (NETosis) is an immunologic process that has been suggested to promote recurrence and metastasis in colorectal and other cancers.^{1,2} The benefits of regional anesthesia in patients undergoing cancer surgery have been well documented.^{3,4}

PRESENT

There are few studies on the effect of thoracic epidural anesthesia (TEA) on NETosis in colorectal cancer surgery. This is a randomized controlled trial looking at the impact of regional anesthesia (propofol + TEA) versus general anesthesia (GA) on NETosis after laparoscopic resection for colorectal cancer. This study finds that NETosis is significantly lower and even blunted at 24 h after surgery in the regional anesthesia group.⁵ Meanwhile, the use of epidural block during surgery can reduce the use of intraoperative opioids, accelerate the recovery of intestinal function, and reduce patients' postoperative pain.⁵ The findings of this study suggest that the type of anesthesia used during surgery impacts immunologic function and thereby may impact cancer outcomes.

FUTURE

While the data from the study do show a difference in NETosis, whether this will translate into a significant difference in clinical outcomes remains to be seen. Additional large-scale prospective trials involving colorectal cancer recurrence and metastasis as the endpoints are required to determine the significance of these observations.

DISCLOSURE There are no conflict of interest.

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