ASO Author Reflections: D2 Lymphadenectomy Must be Complied No Matter the Arterial Variation

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PAST

Gastrectomy with D2 lymphadenectomy is the main treatment for advanced gastric cancer. It is technically demanding and implies clearing the lymph nodes along the celiac trunk and its branches. Surgeon compliance with D2, especially in the west, has frequently been questioned. In the Dutch trial (D1 vs. D2), 81.5% of the D2 patients had inadequate lymph node removal.¹ Additionally, D2 has considerable morbidity and eastern outcomes are hard to match.²

Vascular variations of the gastric and hepatic irrigation are observed in 25% of patients. They increase the risk for unattended vessel injuries, bleeding, inadequate lymph node resection, and extend surgical duration.³

PRESENT

Solid data supporting laparoscopic gastrectomy for advanced gastric cancer has been recently published and it is now gaining worldwide acceptance.⁴ Because open D2 is still a concern, worst results may be anticipated with the minimally invasive access (robotic included). In this context, arterial variations (besides all previously mentioned risks) raise the technical challenge and the chance for conversion. The present video was created to mitigate this.⁵ It shows how to identify preoperatively the arterial variation and provides strategies to perform D2 lymphadenectomy safely in different anatomic settings. This knowledge is fundamental to surgeons who manage gastric cancer; however, practical data are currently lacking.

FUTURE

For those with anatomical variation, peritumoral injection of indocyanine green is an interesting strategy and should be studied. It has the ability to reveal the lesion's lymphatic drainage.

Finally, further studies are required to determine the therapeutic value of removing those lymph nodes around the hepatic branch that comes from the superior mesenteric artery, and those located over the portal vein in the absence of the common hepatic artery. Until then, we must comply with D2 and remove stations as indicated in the video.

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